OASYS Global Integration Guide Addendum
Chris Eveleigh, 22 October, 1998
Version 1.7

1 Introduction

This document summarizes the changes between OASYS Global versions 1.2* (1.2* is OASYS Global 1.20, 1.21 and 1.22) and 1.30. These are:

Ability to manage ALERT 3.0 discrete field delivery instructions.

Addition of equity options financial instrument.

Functional extension of the Agency / Principal / Cross field.

Year 2000 Tested

New Security Cross Reference Database

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While each of these changes has an impact on importing / exporting data to / from OASYS Global, the changes with the biggest impact are the changes to ALERT delivery instruction cross referencing and the addition of equity options to the scope of financial instruments that OASYS Global manages.

The changes are presented in this document so that OASYS Global clients can prepare their own systems for the changes included in OG 1.30.

2 ALERT 3.0 Discrete Field Delivery Instructions

ALERT 3.0 introduces discrete fields for delivery instructions. Prior to the introduction of ALERT 3.0, ALERT data was represented via a 2000-character free-form text field.

Features of OG 1.30 include:

Choosing whether to continue to accept, import / export and display ALERT data as a 2,000-character free-form text field or to represent ALERT data in the new discrete fields.

Seamless interaction with OG 1.2* users, even when ALERT data is represented in discrete fields on the OG workstation display and in import / export files.

Ability of clients to continue to use the current OG 1.2* file format conventions as detailed in the OG 1.2* Integration Guide.

For compatibility with back office systems, a configuration flag `GOIE_EXPORT_ALERT30` is included in the `CS1.DAT` file. When `GOIE_EXPORT_ALERT30` is set to '`Y`' or is missing, discrete delivery instructions are exported. If `GOIE_EXPORT_ALERT30` is set to '`N`' it triggers the sending of a flag to be sent to the OG host in the logon structure, which signals the host that this OG workstation is to be sent only OG 1.2* / ALERT 2.2 (free form text) delivery instructions. This flag will be configured at installation time by a Customer Service Representative or equivalent.

The structure of the new data of the type tag and string. The workstation stores this information in the form "tag,value,tag,value". This exported string is in the already existent 2,000-character export field. The workstation then uses a new table, Table129, to convert the tags into an English translation which gets represented in the GUI. Table129 consists of four columns of data.

ALERT 2.2 free form text delivery instructions are handled as they are in OG 1.2*, being exported as a whole string in quotes. Commas, quotation marks and backslashes in the value items are supported

via a backslash as follows: "…tag,some\, value,tag,value…", for example: "…citystate,Boston\, MA,zip,02210…"

A listing of the contents of Table129.dat is presented in Appendix A. The changes made will affect `brk_deliv_txt` in the `brk_delivery` record and the `id_delivery_txt` in the `inst_delivery` record.

Finally, the SUBAGENT delivery method will be replaced in ALERT 3.0 with various local clearing methods OR a new UNIVERSAL method. Clients should be sensitive to the fact that ALERT 3.0 settlement instructions support more fields than does SUBAGENT. The OG 1.30 host (and ALERT 3.0 host) will map fields according to a predetermined schema. See Appendix A for the details of this field-level mapping for all ALERT . During the period in which Thomson ESG's clients are converting from ALERT 2.2 to ALERT 3.0, ALERT 3.0 early adopters should be aware that all fields available in the ALERT 3.0 settlement instructions will no be visible in the GUI or available via import export to ALERT 2.2 users. All fields crucial to trade settlement will continue to be available to OG 1.2 users and those OG 1.30 users who set the `GOIE_EXPORT_ALERT30` flag discussed below to a value of N, thereby disabling discrete fields in import / export files. Fields used in addition to those specified, when the counterparty is an ALERT 2.2 / OG 1.2* counterparty OR OG 1.30 users who have set their `GOIE_EXPORT_ALERT30` to N, will be discarded by the OG 1.30 host. For clients wishing to use ALERT 3.0 discrete fields, the `GOIE_EXPORT_ALERT30` flag should be set to Y, or the line in the CS1.dat file should be commented out by the use of a semicolon and the OG 1.30 host will perform a translation as detailed below for the SUBAGENT method into the various ALERT 3.0 methods.

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3 Equity Options

OG 1.30 supports equity option trades. To accomplish this, OG allows users to enter a variable lot size between 1 and 9,999. The formula used by OG to calculate incoming lot sizes (LS) is: LS = gross consideration divided by (price times quantity) or GC / (P x Q). This affects the calculation and display of gross consideration on the Bargain Entry screen, the Contract and Confirmation screen and the Message Summary screen. Equity options are not a feature of OG 1.2*. Therefore, clients who wish to take advantage of OG's equity options feature must not only be using OG 1.30 themselves, but their counterparty must also be using OG 1.30. Should an OG 1.30 user send an equity option trade to a counterparty who is using OG 1.2*, the trade will appear on the counterparty's workstation but the gross consideration will not equal price times quantity.

Example 1:

Price is $3, quantity is 4 contracts, lot size is 100, gross consideration is $1200.

Example 2:

Price is $3, quantity is 4 contracts, lot size is 500, gross considerations is $6000.

The default lot size is one (1). Note that a default of one (1) is already in effect in OG 1.2*. The ability to indicate that the trade is against either an open or closed position (with a default of blank) is managed by the addition of two new bargain conditions: OO—option open and OC—option closed.

In OG 1.2* lot size is assumed to be 1 unless the trade price has a trailing % sign. In the case of the % sign, the trade is assumed to have a lot size of 100 and gross consideration is equal to quantity times price divided by 100. "Lot Size" in this case is a misnomer, since it is effectively a "Unit Size".

Lot size is an import/export field which is supplied by OG on export and must be provided by the client on import. In OG 1.2* in both cases, there is either a 1 or a 100 in the Lot Size field (and no % in the trade price) to represent which case it is.

The lot size field is now included on the OG workstation on three screens: the Message Summary screen, the Bargain Entry screen, and the Contract and Confirmation screen. Specifically on the

Bargain Entry screen, the lot size field defaults to 1, but allows for any number, n, where 1 <= n <= 9999. The database has not changed however, so lot size is calculated based on the existing price, quantity and gross consideration fields. The new screen field is inserted in between "Traded Nominal" and "Access Code Type". Entering a value in this field affects the gross consideration according to the following formula: price * quantity * lot size. If the user enters a % as part of the price the lot size is not editable. Tabbing forward and backward skips over the field. To edit the lot size, the user must remove the % from the price. For the trade to be saved (F10) with the lot size not 1 and no % in the price, one of the bargain condition fields must be either "Option Opened" or "Option Closed". If this condition is not met, a border message will appear and the user is then be able to reedit the screen.

For both the import and export, there are no new fields. The rules around the lot size field have changed however. The field affected is the `lot_size` field in the `block_detail` record. First, the export field size increases from three (3) characters to four (4). Then, the rules to follow are that no % is ever imported or exported as part of the price. This is consistent with how import / export works in OG 1.2*. If the bargain conditions are either equal to "Option Opened" or "Option Closed", then the lot size may be between 1 and 9999 and in that case the gross consideration equals price * quantity * lot size. If the bargain conditions are not equal to one of these two values, then the old rules apply. The lot size is then either 1 or 100 and the gross consideration is equal to price * quantity * lot size or (price / 100) * quantity, respectively.

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4 Agency / Principal / Cross Field Functional Extensions

OG 1.2* allows for A—Agency, P—Principal, X—Cross types. New in OG 1.30 are: G = Part Agency, R = Part Principal, and C = Part Cross. Aside from being represented in import / export files as G, R and C, these are also the single-character choices for this field. The field affected by this change is the `ag_prin` field in the `block_detail` record.

5 Year 2000 Tested

The OG 1.30 Host and Workstation have been rigorously tested with a battery of Year 2000 tests, including crossover testing (31 December, 1999-1 January, 2000), leap year testing (28 February-1 March, 2000), "difficult" date testing (9 September, 1999) and a wide range of others. While no changes to client systems are required to obtain the benefits of this testing, it is worth noting that no version of OG prior to version 1.30 has been tested for Year 2000 readiness. As such, all clients should plan on updating their systems to OG version 1.30 at their earliest possible convenience. In no case will ESG support versions of OASYS Global prior to version 1.30 after 1 January, 2000.

6 Security Cross Reference Database

A separate Thomson ESG project, the Security Cross Reference Database project, which represents an overhaul of the previous security cross reference database has been completed. The rollout of OG 1.30 includes integration with this new database and its related tools. The integration of OG with the new security cross reference database represents the fulfillment of a promise to ESG's regional offices to improve local security code coverage and provide the regional offices with direct access to the security cross reference database, including the ability to modify existing data and add new data. A complete list of code coverage is included in Appendix C at the end of this document. This list supercedes any previous documentation of this information.

Appendix A

Contents of table129:
Note: the Internal OG Reference number to the right is subject to change. This number should not be used in any integration effort.

Tag Number	Type	Long Name	Internal OG Reference

```
40A         M511 Custodian Name 1                                  ;160
40a         M511 Custodian Name 2                                  ;170
40B         M511 Custodian BIC                                     ;180
40C         M511 Custodian Address 1                               ;190
40c         M511 Custodian Address 2                               ;200
40D         M511 Custodian City                                    ;210
40E         M511 Custodian Locality                                ;220
40F         M511 Custodian Country                                 ;230
40G         M511 Custodian Post Code                               ;240
41A         M511 Sub Agent Name 1                                  ;250
41a         M511 Sub Agent Name 2                                  ;260
41B         M511 Sub Agent BIC                                     ;270
41C         M511 Sub Agent Address 1                               ;280
41C         M511 Sub Agent Address 2                               ;290
41D         M511 Sub Agent City                                    ;300
41E         M511 Sub Agent Locality                                ;310
41F         M511 Sub Agent Country                                 ;320
41G         M511 Sub Agent Post Code                               ;330
42A         M511 Correspondent Name 1                              ;340
42a         M511 Correspondent Name 2                              ;350
42B         M511 Correspondent BIC                                 ;360
42C         M511 Correspondent Address 1                           ;370
42c         M511 Correspondent Address 2                           ;380
42D         M511 Correspondent City                                ;390
42E         M511 Correspondent Locality                            ;400
42F         M511 Correspondent Country                             ;410
42G         M511 Correspondent Post Code                           ;420
43          M511 Security A/C #                                    ;080
44          M511 Account Reference 1                               ;060
44a         M511 Account Reference 2                               ;070
45          M511 Cash Account Number                               ;120
45A         M511 Alternate Cash Account Number                     ;150
46          M511 Depository/Clearing System Identifier 1           ;010
47          M511 Depository/Clearing System Identifier 2           ;020
48          M511 Depository/Clearing System Identifier 3           ;030
49          M511 Participant Name 1                                ;040
49a         M511 Participant Name 2                                ;050
50          M511 Sub Account Reference 1                           ;090
50a         M511 Sub Account Reference 2                           ;100
51          M511 Sub Account Number                                ;110
52          M511 Payment Currency                                  ;130
52A         M511 Alternate Currency                                ;140
53          M511 Correspondent Cash Account Number                 ;430
53A         M511 EUR Cash Account Number                           ;440
54          M511 Relationship                                      ;450
55a         M511 Designation                                       ;470
55A         M511 Registration Name 1                               ;460
55B         M511 Registration Address 1                            ;480
55b         M511 Registration Address 2                            ;490
55C         M511 Registration City                                 ;500
55D         M511 Registration Locality                             ;510
55E         M511 Registration Country                              ;520
55F         M511 Registration Post Code                            ;530
56A         M511 Settlement Contact                                ;540
56B         M511 Settlement Contact Phone                          ;550
57          M511 Special Instructions 1                            ;560
57a         M511 Special Instructions 2                            ;570
91          M511 Institution BIC                                   ;580
92          M511 Institution Contact                               ;590
92A         M511 Institution Phone                                 ;600
93A         M511 Interested Party 1 ID                             ;610
93B         M511 Interested Party 1 BIC                            ;620
93C         M511 Interested Party 1 Account Number                 ;630
93D         M511 Interested Party 1 Name                           ;640
93E         M511 Interested Party 1 Contact                        ;650
93F         M511 Interested Party 1 Phone                          ;660
93G         M511 Interested Party 1 Special Instructions 1         ;670
93Ga        M511 Interested Party 1 Special Instructions 2         ;680
94A         M511 Interested Party 2 ID                             ;690
94B         M511 Interested Party 2 BIC                            ;700
94C         M511 Interested Party 2 Account Number                 ;710
94D         M511 Interested Party 2 Name                           ;720
94E         M511 Interested Party 2 Contact                        ;730
94F         M511 Interested Party 2 Phone                          ;740
94G         M511 Interested Party 2 Special Instructions 1         ;750
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```
94Ga        M511 Interested Party 2 Special Instructions 2          ;760
95A         M511 Interested Party 3 ID                              ;770
95B         M511 Interested Party 3 BIC                             ;780
95C         M511 Interested Party 3 Account Number                  ;790
95D         M511 Interested Party 3 Name                            ;800
95E         M511 Interested Party 3 Contact                         ;810
95F         M511 Interested Party 3 Phone                           ;820
95G         M511 Interested Party 3 Special Instructions 1          ;830
95Ga        M511 Interested Party 3 Special Instructions 2          ;840
```

Appendix B

ALERT 3.0 to 2.2 mapping for ALERT 3.0 Settlement Instruction fields vs. the SUBAGENT method

See the ESG web site for the ALERT 3.0 Matrix document for a complete mapping to all ALERT 2.2 methods.

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3.0 Settlement Instr. Fields	2.2 - SUBAGENT
ID 1	
ID 2	
ID 3	
Participant 1	
Participant 2	
A/C Ref 1	Ref- line 1
A/C Ref 2	Ref line 2
Security A/C #	Sub Agent Security A/C#
Sub A/C Ref 1	
Sub A/C Ref 2	
Sub A/C #	
Payment Currency	Payment Currency
Cash A/C #	Sub Agent Cash A/C #
Alternate Currency	
Alt Cash A/C #	
Custodian BIC	Custodian SWIFT BIC
Custodian Name 1	Custodian Name
Custodian Name 2	
Custodian Address 1	Custodian Address1
Custodian Address 2	Custodian Address 2
Custodian City	Custodian Address 3
Custodian Locality	Custodian Address 4
Custodian Country	
Custodian Post Code	
Sub Agent BIC	Sub Agent BIC
Sub Agent Name 1	Sub Agent Name
Sub Agent Name 2	
Sub Agent Address 1	Sub Agent Address 1
Sub Agent Address 2	Sub Agent Address 2
Sub Agent City	Sub Agent Address 3
Sub Agent Locality	Sub Agent Address 4
Sub Agent Country	
Sub Agent Post Code	Sub Agent Post Code
Corresp BIC	Correspondent BIC
Corresp Name 1	Correspondent Name

Corresp Name 2	
Corresp Address 1	Correspondent Address 1
Corresp Address 2	Correspondent Address 2
Corresp City	Correspondent Address 3
Corresp Locality	Correspondent Address 4
Corresp Country	
Corresp Post Code	
Corresp Cash A/C #	Corespondent Cash A/C #
Corresp Security A/C #	Correspondent Sec A/C #
Relationship	
Reg Name 1	Registration 1
Designation	Registration 2
Reg Address 1	Registration 3
Reg Address 2	
Reg City	
Reg Locality	
Reg Country	
Reg Post Code	
Settlement Contact	S/A Settlement Contact
Settlement Phone	S/A Settlement Phone
Settlement Fax	
Settlement Telex	
Special Instr 1	Sub Agent Telex
Special Instr 2	
Institution BIC	
Institution Contact	
Institution Phone	
I/P 1 ID	
I/P 1 BIC	
I/P 1 A/C #	Corr Settlement Contact
I/P 1 Name	
I/P 1 Contact	
I/P 1 Phone	
I/P 1 Special Instr 1	Corr Settlement Phone
I/P 1 Special Instr 2	Correspondent Telex
I/P 2 ID	
I/P 2 BIC	
I/P 2 A/C #	
I/P 2 Name	
I/P 2 Contact	
I/P 2 Phone	
I/P 2 Special Instr 1	
I/P 2 Special Instr 2	
I/P 3 ID	
I/P 3 BIC	
I/P 3 A/C #	
I/P 3 Name	
I/P 3 Contact	
I/P 3 Phone	
I/P 3 Special Instr 1	

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I/P 3 Special Instr 2	

Fields that will contain data that is different from what the label says :

Sub Agent Address 4
Correspondent Address 3
Correspondent Address 4
Correspondent Sec A/C #

Appendix C

Security Code Types Available in OG 1.30

Security Code Type	Description
ISIN	International Security Identification Number
VALOR	Swiss Number
CUSIP	U.S. and Canadian Number
SEDOL	British Number
SICC	Japanese Number
LUX	Luxembourg Number
AUSTRIA	Austrian Number
SVM	Belgian Number
SICOVAM	French Number
WPK	German Number
DUTCH	Dutch Number
CEDEL	CEDEL Number
EURO	Euroclear Number
COMMON	Common Code Number
MEXICO	Mexican Number
OTHER	Other
ASX	Australian Number
IC	Italian Number
HK	Hong Kong Number
CA	CAC Number
EP	Epic Number
FC	Fond Kommission Number
IM	ISMA Number
TP	Topic Number
TS	Tokyo Stock Exchange Number
UK	Unknown
CN	Chinese Number
ID	Indonesian Number
MY	Malaysian Number
PH	Philippine Number
SG	Singapore Number
KP	South Korean Number
SET	Thai SET Number
BM	Bermudan Number
RIC	RIC Reuters Investment Code

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Security Code Type	Description
AR	Argentina Stock Exchange Code
BR	Brazil Stock Exchange Code
BW	Botswana Stock Exchange Code
CH	Switzerland Stock Exchange Code
CINS	CINS
CL	Chile Stock Exchange Code
CY	Cyprus Stock Exchange Code
DK	Denmark Stock Exchange Code
GH	Ghana Stock Exchange Code
IL	Israel Stock Exchange Code
IN	India Stock Exchange Code
IS	Iceland Stock Exchange Code
JM	Jamaica Ticker
LT	Lithuania Stock Exchange Code
MA	Morocco Stock Exchange Code
MU	Mauritius Stock Exchange Code
NG	Nigeria Stock Exchange Code
NO	Norway Stock Exchange Code
NZ	New Zealand Stock Exchange Code
PE	Peru Stock Exchange Code
PT	Portugal Stock Exchange Code
PY	Paraguay Stock Exchange Code
RU	Russian Federation Stock Exchange Code
SI	Slovenia Stock Exchange Code
TN	Tunisia Stock Exchange Code
TR	Turkey Stock Exchange Code
TW	Taiwan Province Of China Stock Exchange Code
US	United States Ticker
UY	Uruguay Stock Exchange Code
VE	Venezuela Stock Exchange Code
WKN	WKN
ZA	South Africa Stock Exchange Code
ZW	Zimbabwe Stock Exchange Code
CCMID	Valorinform CCMID
LSE-TC	London Stock Exchange Unique ID

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