



AUSTRALIAN SECURITIES EXCHANGE

ASX Market Rules

Guidance Note No. 22

KEY TOPICS

1. Automated Order Processing
2. Operational Requirements
3. Filters

ASX Market Rules

1. 13.1
2. 13.3
3. 13.4
4. 13.5
5. 17.2.2
6. 22.2.9

Cross-reference

1. ASX Guidance Note 19 – Automated Order Processing: Certification
2. ASX Guidance Note 21 – Automated Order Processing: Authorised Persons
3. ASX Guidance Note 20 – Crossings Arising from The Use Of Automated Order Processing

Guidance Note History

Issued: 10 April 2006

Previously:
1 July 2004

ASX Guidance Note 12/02
“SEATS Automated Order Processing” dated 6/12/02

AUTOMATED ORDER PROCESSING: OPERATIONAL REQUIREMENTS

Purpose

The purpose of this Guidance Note is to provide assistance to Trading Participants on the interpretation of ASX's expectations in relation to their compliance with requirements applicable to Automated Order Processing (“AOP”). It expands upon the Operational Requirements in relation to AOP. It sets out ASX expectations in relation to the general responsibilities and the Operational Requirements to be considered by Trading Participants who use AOP. Compliance with the Operational Requirements represent ongoing obligations.

The Open Interface (“OI”) provides Trading Participants with the ability to access the Trading Platform. This includes establishing an interface between their own proprietary trading systems (whether developed in-house or supplied by a third party) and the Trading Platform. This capability can accommodate, among other things, computer generated trading and client order routing.

The issues outlined in this Guidance Note are not an exhaustive representation of the potential controls and procedures that could be implemented to ensure compliance with the Rules. The complexity of the Operational Requirements necessary to support any particular AOP system depend upon the system's purpose, the source, size and price of orders passing through the system, the Trading Platform to which the AOP system is connected, the products traded and the business attributes of the system.

Background

This Guidance Note is one of a series relating to Automated Order Processing (“AOP”).

AOP systems can enhance the ability of Trading Participants to route and execute orders. However, their use can also result in increased market volatility, financial risk and regulatory risk to those Trading Participants.



AUSTRALIAN SECURITIES EXCHANGE

Accordingly, all Trading Participants using AOP systems should have written and implemented internal control and supervisory procedures, regardless of whether the Trading Participant is utilising its own proprietary system or that of an outside vendor.

Whilst this Guidance Note applies to Automated Order Processing systems, the supervisory standards for order entry do not change with the medium used (manual or AOP) but how those standards are satisfied may be affected by technology.

For the avoidance of doubt, the requirement to comply with AOP Requirements under the Market Rules is distinct from any qualification or connectivity process required under a Trading Platform Access Agreement.

Market Integrity

The primary obligation of Trading Participants, whether processing orders manually or pursuant to AOP, is to not interfere with the conduct of an orderly market and to not assist or facilitate manipulative trading. The Operational Requirements serve to support that obligation in an AOP environment. The fact that an AOP system has been certified does not absolve the Trading Participant of its underlying compliance responsibility in relation to these primary obligations. Nothing in this Guidance Note should in any way be interpreted as detracting from this primary obligation. ASX Market Rules 13.4 and 13.5 apply equally to orders entered into the Trading Platform whether manually by a DTR or directly using AOP.

Participant to determine and manage its risk

Trading Participants are responsible for all Trading Messages submitted into the Trading Platform via their respective Open Interface Devices. It is the obligation of each Trading Participant to identify and implement controls (including appropriate filters) to manage their regulatory risk (including the risk to its ability to satisfy its primary market integrity obligations), satisfy the Operational Requirements and comply with the other Market Rules. As such, each Trading Participant must have in place effective mechanisms to detect potential or actual manipulative activity and, where discovered, to then have available the means to take appropriate action.

Whether the Trading Participant relies solely on its own operational controls (including filters) or relies on a combination of its own operational controls (including filters) and the filters that exist within the Trading Platform is a matter for the Trading Participant to determine based upon its system capabilities and its regulatory risk profile.

ASX Surveillance monitors all activity in the markets provided by ASX. ASX Surveillance may identify activity which may interfere with the conduct of an orderly market or which may assist or facilitate manipulative trading. Organisational and technical resources comprehensively designed and implemented by Trading Participants will minimise the occurrence of these activities being identified by ASX Surveillance. ASX will consider more favourably those instances of potential interference with the conduct of an orderly market or manipulative



AUSTRALIAN SECURITIES EXCHANGE

trading which are identified, addressed and notified to ASX by the Trading Participant prior to identification by ASX.

Key Concepts

AOP

AOP is the automatic processing of orders directly into a Trading Platform. The types of AOP include those orders submitted via either Automated Client Order Processing (“ACOP”), Automated Principal Order Processing (“APOP”) or any other form of automated order processing system.

AOP is the process by which orders are registered in or created by a Trading Participant’s proprietary or third party computer system and subsequently submitted as corresponding Trading Messages without being “keyed or re-keyed” by a Designated Trading Representative (“DTR”). The concept of being “keyed or re-keyed” is critical to the distinction between manual processing and AOP. Any time a DTR is required to exercise discretion and key or re-key an order into the Trading Platform after registration in, or creation by, a Trading Participant’s proprietary computer system the order is no longer AOP.

APOP

APOP is the process by which orders are automatically submitted into the Trading Platform from:

- the Trading Participant’s proprietary computer order generating system (principal market making and principal program trading systems); or
- a representative (other than a DTR) of a Trading Participant whose duties include trading or dealing in Traded Products on behalf of the Trading Participant as principal.

ASX accepts that APOP systems are limited to principal trading and market making only. Accordingly, a different type and standard of filters will apply to these systems than would otherwise apply to ACOP.

ACOP

ACOP is the process by which orders are automatically received from Authorised Persons, registered by a Trading Participant’s proprietary system and, if accepted for submission to the Trading Platform, subsequently submitted as corresponding Trading Messages without being “keyed or re-keyed” by a DTR. That is, ACOP orders are not keyed, re-keyed or subject of any form of DTR intervention. ACOP is not available to Principal Only Trading Participants as Principal Only Trading Participants may only act on their own behalf.

Before an ACOP order is transmitted to the Trading Platform, it will need to be subject to various Operational Requirements, including automated filters and controls. Since a Trading



AUSTRALIAN SECURITIES EXCHANGE

Participant is responsible for all Trading Messages submitted into the Trading Platform, it is important for Trading Participants to effectively filter all orders submitted by Authorised Persons. For this reason, the setting of, and ongoing control of, the filter parameters is as important as the nature of the filters themselves.

The diagram below represents the concepts of APOP, ACOP and Authorised Persons.

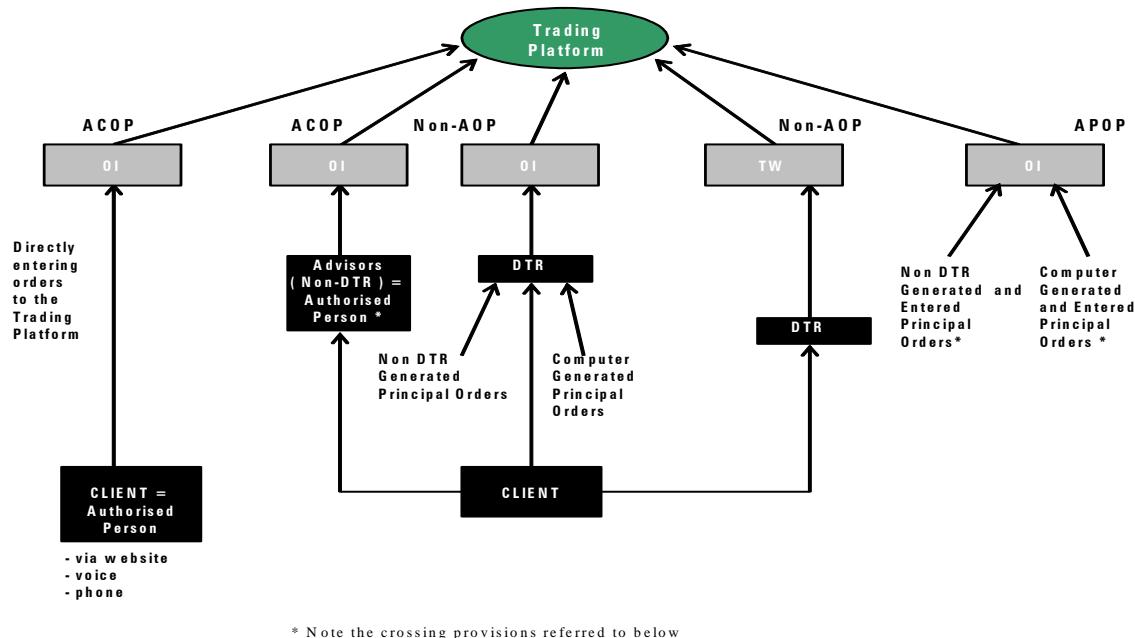


Figure 1 - Different Channels of order entry into the Trading Platform

Proprietary Systems

Proprietary systems are trading, order entry or order routing systems (whether developed in-house or supplied by a third party) other than Trader Workstations.

Filters

Filters are that set of rules inherent in an AOP (including ACOP and APOP) system that determine which orders (or series of orders) meet a pre-defined set of criteria and can then pass into the Trading Platform.

Filter parameters

Filter parameters are those variables within the filters that can be changed to modify the effectiveness of the filters without changing the rule to which the filter applies. The filter parameters result in orders being handled differently according to factors such as, for example, the source, size or price of the order. A filter parameter may apply at a number of different levels (ie, at financial product, client or dollar value level). For example:



ASX
AUSTRALIAN SECURITIES EXCHANGE

- A filter may exist to identify orders which exceed a certain dollar value. The filter parameter may allow a different dollar value to be set for different financial products or for different clients; or
- A filter may exist to identify orders which are a number of price steps away from the market. The filter parameter may allow orders to be placed at different price steps away from the market for retail and institutional clients.

In many AOP systems filter parameters may be changed on an intra-day basis.

AOP Requirements

Rule 13.1.1 outlines the general responsibilities of Trading Participants with regard to trading in financial products. It covers areas such as a Trading Participant's responsibility for the "accuracy", "the integrity" and "bona fides" of all orders entered into the market, and a Trading Participant's responsibility to ensure the "efficiency and integrity of the markets" and "the proper functioning" of the Trading Platform.

These responsibilities exist for a Trading Participant whether or not they are using AOP. In an AOP environment orders may be entered by clients rather than by representatives of the Trading Participant. The Trading Participant must rely on appropriate organisational and technical resources to perform the role of ensuring the "efficiency and integrity of the market".

When Trading Participants use a vendor's AOP system, it is incumbent upon the Trading Participant to ensure that the system has the requisite controls in place and that the vendor's system complies with all ASX requirements.

Operational Requirements

The Market Rules require that a Trading Participant which uses its system for AOP must at all times comply with the Operational Requirements, including having appropriate automated filters. The Operational Requirements include:

- organisational and technical resources;
- trading management arrangements; and
- security arrangements.

Compliance with the Operational Requirements is an important foundation supporting the market integrity obligations outlined above. Each of the Operational Requirements are considered below.



ASX
AUSTRALIAN SECURITIES EXCHANGE

Operational Requirement 1 – Organisational & Technical Resources

Whilst the Rules specifically highlight the need to implement “appropriate filters” as one of the most important organisational and technical resource issues, filters are only one element of the organisational and technical resources that a Trading Participant needs to address when considering how best to manage its risks. The following section addresses a number of those organisational and technical resource issues.

Organisational and technical resources for filtering orders

The primary obligation of Trading Participants, whether processing orders manually or pursuant to AOP, is to not interfere with the conduct of an orderly market and not facilitate manipulative trading. ASX Market Rules 13.4 and 13.5 apply equally to orders entered into a Trading Platform whether manually or pursuant to AOP.

There is a range of controls that can be adopted to satisfy the Operational Requirements. The Rules specifically highlight one of those controls: the need to implement “appropriate filters”.

In any system used for AOP (whether APOP or ACOP), filters and filter parameters provide the principal means by which each order is checked to ensure compliance with Market Rules requirements. Filters are intended to establish points at which orders are tested and, by exception, action other than passing them directly into the market is taken. In practical terms, an automated filter can do one of four things in relation to any given order (depending on the settings of the filter parameters):

- reject the order outright;
- pass the order to a DTR for review and a decision as to whether the order can be placed in the market;
- pass the order into the market but identify it as an exception on exception reports generated by the system for subsequent analysis; or
- pass the order into the market.

ASX recognises that, given the differences in the size, complexity of operations, and nature of the business conducted by Trading Participants there must be some degree of flexibility in determining what constitutes “appropriate filters” for each one. ASX does not prescribe the filters on which a Trading Participant must rely. ASX does not provide advice upon the design and construction of filters. It is ASX policy to leave the exact form of the filters to each Trading Participant, thereby providing the Trading Participant with flexibility to design pre-execution filters and procedures to suit the Trading Participant’s business (subject at all times to the market integrity issues addressed above). The nature and scope of the filters adopted is a matter for the Trading Participant to determine based upon its system capabilities and its regulatory risk profile. Many of the issues the Trading Participant needs to consider are set out in the Market Rules.



ASX

AUSTRALIAN SECURITIES EXCHANGE

Important elements of the Operational Requirements are the processes and controls over changes to the technical resources (including filters). A substantial part of the certification requirements are directed towards those control processes. ASX would not accept that an AOP system is compliant with the Market Rules,¹ where there are poor processes and internal controls over changes to filters, filter parameters and exception reports or where filters, filter parameters and exception reports could be disabled (or turned off).

Organisational and technical resources for minimising errors

An AOP system should include organizational and technical resources for minimizing the opportunity for erroneous orders to be entered in the market.

SEATS contains certain filters primarily to prevent the entry of erroneous orders. These filters generate warning messages if they are triggered by an order. Trading Participants may rely on the SEATS price step filters to minimize the opportunity for the entry of erroneous orders or orders too far from the market. To do this, the Trading Participant will need to ensure that its AOP system recognizes and appropriately acts upon those warning messages. Care will also need to be exercised when solely using these warning messages during pre-open phases on SEATS owing to the possibility of overlapping bids and offers. Trading Participants should consider additional filters to manage their risk in that regard. SEATS provides for liability limits however, these limits are not suitable as they are set at the DTR level. It is a commercial decision for Participants to determine the level of risk they will accept.

In due course all products traded on SEATS will migrate to the Integrated Trading System (“ITS”). In SEATS, ASX has established the following warnings (users cannot disable or amend these warnings):

- order price too-far-from-market
- order overlaps the current market
- short selling warnings

SEATS includes a liability warning and a liability error for large value orders. The user may configure both of these values, amend the values and disable the warning and the error. ITS does not contain the same filters in the trading engine as SEATS. As a result, Trading Participants may not rely on the ITS trading engine to alert the user to the possibility of an erroneous order being entered. Trading Participants will need to develop their own filters to prevent the entry of erroneous orders.

¹ ASX recognises that in certain circumstances it may be desirable (or even required) that the AOP system itself be turned off (see Suspension, Limitation or Prohibition of AOP below). In such circumstances, ASX would expect all orders to be entered by a DTR.



AUSTRALIAN SECURITIES EXCHANGE

To allow the development of appropriate warnings in third party applications ASX has provided Application Processing Interface (“API”) users with guidelines on implementing warnings in their applications. In ITS, these warnings and alerts will not exist in the ASX ITS trading engine². Trading Participants that use OI devices (other than the CLICK Trade XT™ workstation) will have to build equivalent filters into their systems if they want to rely on these types of alerts and warnings.

Organisational and technical resources for Trading Records

An AOP system must ensure that all trading records comply with the requirements of the ASX Market Rules and the Corporations Act³. These Rules refer to all orders received whether they are entered or rejected for input to the Trading Platform.

ASX expects that an AOP system that did not capture all the information required by the Market Rules (subject to the matters set out in the “Trading Records” Guidance Note) would not be certified. Provision of a certification for a system which does not satisfy all the requirements of the trading record rules will also be viewed seriously by ASX.

Organisational and technical resources for handling of orders rejected to DTRs

Where an order is passed to a DTR for review, ASX expects that the DTR brings professional judgement to bear on the issue of whether there is any risk of non-compliance with the ASX Market Rules. This may require that the DTR makes further enquiries before passing the order into the market, including checking with the client as to their trading intentions, reviewing past trading activity in the security by the client or otherwise seeking further explanations.

The mere fact that an order has been passed to a DTR for review, or has been placed on an exception report, does not absolve the Trading Participant of its underlying compliance responsibility in relation to the order. Where an order has been passed to a DTR for review, ASX expects that a contemporaneous record will be maintained of the action taken by the DTR in considering whether or not to pass the order into the market. The record of the action taken is an integral part of the order records audit trail referred to above. Where a DTR has authorised the entry into the market of an order rejected by an AOP filter, that order is no longer considered an AOP order.

Where an order is passed into the market and placed on an exception report, ASX would expect that a compliance officer or other appropriately qualified person would be available for the DTR to consult and would also monitor the exception report on a regular basis, that is, at least daily.

The following data should be captured, either within the AOP system or separately:

- any error messages and related amendments or cancellations associated with an order returned automatically to clients for action; and

² Certain filters are incorporated into the ITS CLICK Trade XT™ workstation.

³ See section 991D and Regulation 7.8.19



AUSTRALIAN SECURITIES EXCHANGE

- any phone calls and related actions, such as DTR overrides, amendments or cancellations, relating to the rejected orders passed to DTRs for action.

Organisational and technical resources for Crossings

ASX Market Rules 17.2.2 and 22.2.9 set out how orders entered via AOP may be crossed in the Trading Platform. These are further discussed in Guidance Note 20 “Crossings arising from the use of Automated Order Processing”.

Rule 22.2.9 is subject to the transitional provisions set out in Rule 32.1.1(b)(2). Hence, references in this Guidance Note to Rule 22.2.9 only become relevant on or after the Derivatives Commencement Date.

Organisational and technical resources for client order priority

If a Trading Participant is accepting client orders for entry by DTRs, as well as operating APOP into a Trading Platform, its allocation policy is extremely important. Procedures must ensure that the Trading Participant deals fairly and in due turn with client orders in accordance with ASX Market Rule 7.5. Trading Participants should have controls to manage this.

Organisational and technical resources for trading as Principal – especially automated market making and/or arbitrage

The obligations in relation to principal trading apply equally to orders entered manually or via AOP. AOP enables Trading Participants to connect their own proprietary trading systems to the Trading Platforms. These systems may be integrated with the Trading Participant’s back office and risk management systems, and further may feature computer generated order capabilities. Where a Trading Participant intends to develop computer programs designed to generate and submit buy, sell or combination orders to the Trading Platform automatically (without the need for manual intervention) upon the happening of certain pre-defined events, the Trading Participant must take special care to ensure that its compliance capabilities remain effective. This is particularly true with respect to the prevention of manipulative trading.

Matters to be considered include:

- monitoring and reviewing all computer programming aspects including the development staff involved and the programme parameter specifications;
- evaluating the manner in which the programme will operate under various market scenarios to ensure compliance with the Market Rules;
- having procedures in place to ensure that prior to effecting a particular programme strategy, changes in market conditions are assessed to ensure compliance;
- regular reviews of the effectiveness of monitoring systems, and where warranted, appropriate adjustments made to ensure their continued effectiveness;
- setting (and adjusting where necessary) appropriate system monitoring parameters (alerts) designed to detect potential manipulative or other unusual (eg improper short selling) activity;
- generation of ad hoc and exception reports to be reviewed by designated staff (eg management and compliance), and procedures established with respect to appropriate follow-up action; and



AUSTRALIAN SECURITIES EXCHANGE

- involvement of appropriate staff (eg management, compliance and internal audit) in the development of the programme strategy prior to its being available for use.

Organisational resources for “contingent” client instructions

AOP enables Trading Participants to develop and connect systems featuring the ability to “preload” contingent client instructions designed to generate and submit buy, sell or combination orders to a Trading Platform automatically (without the need for manual intervention) upon the happening of certain pre-defined events (for example, contingent “stop-loss” instructions, momentum instructions, etc). When implementing these systems the Trading Participant must take special care to ensure that its compliance capabilities remain effective. This is particularly true with respect to the prevention of manipulative trading. In addition to the matters to be considered for trading as Principal – especially automated market making and/or arbitrage – as set out above, Trading Participants should consider, at least, the following:

- monitoring of the magnitude and nature of contingent instructions to avoid unusual movements in market price or increased volatility;
- monitoring of the magnitude of contingent instructions to avoid generation of large numbers of concurrent orders which may result in a load which could have an adverse impact on the performance of the Trading Platform;
- involvement of appropriate staff with access to information on the magnitude of contingent instructions and the Chinese Walls required to manage that information; and
- the application of appropriate filters to both the entry of the “contingent” instruction and any resultant order.

Organisational and technical resources for Suspension, Limitation or Prohibition of AOP

Trading Participants must also ensure that they can suspend, limit or prohibit AOP or ACOP in respect of one or more Authorised Persons. Further, Trading Participants must be able to suspend, limit or prohibit ACOP generally or all AOP in accordance with ASX Market Rule 13.3.8. The requirement to suspend, limit or prohibit AOP may be pursuant to a Trading Participant’s own initiative, or as directed by ASX to ensure the efficiency and integrity of the markets, and the proper functioning of the Trading Platform.

Organisational and technical resources for review of exceptions

The Trading Participant must have the facilities and skilled personnel to regularly analyse historic order and trading patterns to identify circumstances that may warrant compliance review and adjust the relevant automated filters and processes where appropriate.

Organisational and technical resources for controls over, and records, of changes to filters and parameters

As noted above, ASX draws a critical distinction between filters and filter parameters. Filter parameters are those variables within the filters that can be changed to modify the effectiveness of the filters without changing the nature of the rule to which the filter applies. In many AOP



AUSTRALIAN SECURITIES EXCHANGE

systems filter parameters can be changed on an intra-day basis. ASX is of the view that it is important that Trading Participants be able to control, monitor and reconstruct any changes to any filters or parameters within an AOP system and identify which filters are enabled and which are not enabled at any point in time. These records may also be required to be produced as part of an ASX investigation.

The AOP system should capture and record any changes to the filters or filter parameters. This includes intra-day changes to the filter parameters. Generally, these will be maintained in system log files.

It is important that any “material” changes to filters are reported to ASX in accordance with ASX Market Rule 13.3.5.

Organisational and technical resources for change

The Trading Participant must have in place information technology management and technical capabilities that are commensurate with the demands of operating in the AOP environment (eg the ability to adapt within a reasonable period of time to changes to the OI specifications prescribed by ASX).

The Trading Participant should consider having procedures in place such that:

- software changes are adequately tested before implementation;
- only authorised changes can be implemented;
- new software can only be implemented into the production environment after sign off by a person of authority; and
- filters and filter parameters can only be changed in the production environment after sign off by a person of authority.

Organisational and technical resources for capital liquidity requirements⁴

Trading Participants must at all times comply with the capital liquidity requirements contained in the ASX Market Rules Schedule 1A. However, AOP presents opportunities for efficiency gains in the automation of monitoring and reporting of the capital liquidity requirements.

In a non-AOP environment, DTRs monitor the size, volume and frequency of orders being entered into the market and bring orders of exceptionally large value, quantity or frequency to the attention of the relevant people for authorisation. Similar procedures need to be put in place in an AOP environment bearing in mind that AOP has far greater capacity for order flow than manual processing. Consideration should be given to automated processes able to generate warnings if the organisation is at risk of breaching its capital liquidity requirements. Processes that may assist in ensuring compliance with the capital liquidity requirements include:

⁴ This section of the guidance note does not apply to an entity that is a Principal Trader only, as ASX does not prudentially supervise those Trading Participants. However as Clearing Participants that clear for Principal Trader must calculate a counterparty risk requirement for the trading executed by the Principal Trader (as a Principal Trader is a client of a Clearing Participant) this section of the guidance note does require consideration by Clearing Participant's with respect to the trades they clear on behalf of Principal Trader.



AUSTRALIAN SECURITIES EXCHANGE

- an interface to a system which, using the risk measurement methods of Schedule 1A, monitors client credit risk, including counterparty large exposure risk, and which takes into account financial capacity and credit limits, on a real time basis; or
- an interface to a system which, using the risk measurement methods of Schedule 1A, monitors position risk, including issuer large exposure risk, on a real time basis.

The kinds of processes used and the associated limits implemented are a commercial judgement for the Trading Participant. Factors that will influence that judgement include:

- the current level of Liquid Margin;
- the sophistication of the Trading Participant's risk and capital liquidity monitoring arrangements, and in particular whether they are real time or not; and
- the sophistication of the Trading Participant's credit risk assessment process and methodology in relation to clients who have access through the system.

In connection with credit and risk-management controls, Trading Participants must adopt and enforce written procedures reasonably designed to prevent customers from entering into trades that create undue financial risks for the Clearing Participant. In particular, the procedures should address pre-execution and post-execution controls and how to determine which controls apply to a particular customer, special considerations for authorizing use of direct access systems, and on going review of the controls imposed.

Organisational and technical resources for corporate actions

Trading Participants which provide ACOP access for retail clients by way of internet access, voice recognition or other non-human interfaces should consider having the facilities to indicate to the client the basis of quotation of financial products for which the client wishes to place an order. This will allow the retail client to ensure that all orders reflect any change in price or quantity as a result of the corporate action. Ideally, the client should be able to readily determine the basis of quotation (eg ex dividend, ex entitlement, reconstruction) on which the financial products are trading on the Trading Platform prior to the client placing an order in the ACOP system.

For example, after a financial product goes ex-dividend a Trading Participant's system should display or flag to the client that the financial products are trading on an ex-dividend basis for the same duration as the status appears on the relevant Trading Platform. Similarly for financial products which have been reconstructed, either through a share split or consolidation, a Trading Participant's system should display or flag to the client that the financial products are trading on a reconstructed basis for the same duration as the status appears on the Trading Platform. Failure to display the basis of quotation may lead to erroneous trades and impact upon the integrity of the market.

Trading Participants should also consider having the facilities to indicate to the client why their orders have been removed from the ACOP system where those orders have been purged by the Trading Platform as a result of a corporate action to avoid them entering mis-priced orders.



AUSTRALIAN SECURITIES EXCHANGE

In the case of reconstructions the passing of all orders for the financial product to a DTR for checking of price and quantity might be considered prudent to avoid the situation where financial products change hands at dramatically wrong prices or quantities due to a lack of knowledge or a misunderstanding of the corporate action by inexperienced or uninformed clients.

When ITS is implemented there will be changes to the way reconstructions are handled for securities. Security coding conventions will change. Trading Participants should consider which code they wish to display or utilise in their systems. This will depend on a number of factors, including the function of the system, the system users, and any interfacing systems. Trading Participants will also need to consider what codes are displayed to users of ACOP systems, especially having regard to reducing the possibility of pricing errors in the days immediately following the reconstruction.

Organisational and technical resources for multi-market AOP systems

Until all Products have migrated to ITS AOP systems may provide access to more than one Trading Platform in more than one Financial Product (for example, Cash Market Products and Options; or Cash Market Products, Options and Futures) or products traded on another exchange. Similarly until all ASX Products have migrated to ITS an AOP system may need to provide access to both SEATS and ITS. Obviously, the characteristics of the Financial Products differ which may necessitate a range of organisational and technical resources within the one system to accommodate those differences.

ASX expects that the organisational and technical resources and the controls that are applied within a multi-product AOP system will differ according to the product to which access is provided and according to the characteristics of the products traded. For example, the pricing characteristics of Derivative Market Contracts are different to the pricing characteristics of Cash Market Products and the organisational and technical resources need to reflect those differences.

Trading Participants will need to undertake their own analysis as to how to achieve this. For example, it may be possible to establish a single client account with access to multiple products with appropriate controls applying to orders entered in relation to each of those products. Alternatively, it may be necessary to establish multiple accounts for a client according to which products the client may access. This latter alternative may, in itself, make identification of inappropriate trading practices more difficult. Fields within ASX data signals may also help to identify different types of financial products.



AUSTRALIAN SECURITIES EXCHANGE

Operational Requirement 2 – Trading Management Arrangements

All AOP systems must have the capacity to capture the information required by Market Rule 13.1.6.

Trading Participants must adopt and enforce written procedures reasonably designed to maintain adequate personnel and facilities for the timely and efficient delivery of customer orders and reporting of executions. In this regard, the procedures should cover capacity reviews, disaster recovery and redundancies, and advance disclosure to customers of both potential systems problems and alternative procedures for customers to use if problems occur.

Operational Requirement 3 - Security Arrangements

The open interface and AOP require Trading Participants to ensure the security and integrity of access to the trading systems. For this reason, security of any AOP system is of paramount concern to ASX.

Market Rule 13.1.7 refers to security issues. Market Rule 13.1.2 makes it explicit that all orders entered in the Trading Platform are taken to have been submitted by and with the knowledge of the Trading Participant. Trading Participants must maintain and enforce at all times appropriate security procedures which are designed to prevent unauthorised entry of Trading Messages in the Trading Platform. If the Trading Participant's security is inadequate and allows orders into the market without their knowledge (for example, as a result of computer "hacking" or poor internal password controls), those orders will still carry their unique Trading Participant identifier and be their responsibility. It is the Trading Participant's responsibility to ensure that this does not happen.

Trading Participants who accept orders must adopt and enforce written procedures reasonably designed to protect the reliability and confidentiality of orders and account information at all points during the order-routing process. To that end, Trading Participants should have procedures regarding authentication of users, encryption of information, firewalls, authorisation of users, periodic testing of the Trading Participant's security systems, and who will administer system security.

There are ranges of variables that can impact upon the security of an AOP system. The security of third party systems can vary between different installation sites depending upon the security of the local environment. ASX expects that a Trading Participant will obtain comprehensive assurances of the security integrity of the operating system and the application from the system provider. ASX also expects that the Trading Participant will independently consider the security integrity of that system and its implementation in its environment.



ASX
AUSTRALIAN SECURITIES EXCHANGE

The security of a Trading Participant's AOP system accessing the Trading Platforms via an Open Interface gateway should be assessed against security standards such as AUS/NZS 4444 and ISO/IEC 17799.

Should a Trading Participant have inadequate security arrangements for its AOP systems, it may be in breach of the ASX Market Rules.

A non-exhaustive list of the factors which ASX would expect to be considered in assessing the security of its AOP systems and to be reflected in the Certification methodology for an AOP system and which are set out in more detail in the Guidance Note "Automated Order Processing: Certification" include:

- Encryption
- Perimeter Security
- Security Patching
- System Access
- Change Management
- Review
- Architecture

Qualification

ASX has published this note to promote commercial certainty and to assist Market Participants. Nothing in this note necessarily binds ASX in the application of the Rules in a particular case. In issuing this note ASX is not providing legal advice and market participants should obtain their own advice from a qualified professional person in respect of their obligations. ASX may replace this Guidance Note at any time without further express notice to any particular person. Readers may contact ASX to ensure they have the latest version.