International Securities Identification Numbers

Removing the ASX Code

Consultation Paper

16 September 2013

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Invitation to comment

ASX invites comments on the proposed initiative canvassed in this paper by 31 October 2013.

Submissions should be sent to:

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or

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Sydney NSW 2000

Attention: Steven Ball

ASX prefers to receive submissions in electronic form.

Submissions not marked as 'confidential' will be made publicly available on ASX's website.

If you would like your submission, or any part of it, to be treated as 'confidential', please indicate this clearly in your submission.

Executive Summary

The International Securities Identification Number (ISIN) standard is used worldwide to identify specific securities such as debt securities, equities, options, derivatives and futures. ISINs are assigned to securities to facilitate unambiguous clearing and settlement procedures by providing a unique number. They are composed of a 12-digit alphanumeric code and act to unify different ticker symbols "which can vary by exchange and currency" for the same security.

This Consultation Paper examines issues that have arisen around the methodology for allocating ISINs issued by ASX over listed equity and other products, through its role as a National Numbering Agency. These issues necessitate change to the current approach to ensure the process is fully compliant with international standards and can continue to accommodate the growth of the Australian market. The paper proposes a change to the current structure by replacing the ASX Code (currently a key input under the existing ISIN process) with a unique number that does not include the ASX Code. Existing ISINs will remain unchanged if the proposal proceeds.

Introduction

ASX is the National Numbering Agency for Australia responsible for the issue and centralised recording of an International Securities Identification Number (ISIN) where the Issuer is registered or domiciled in Australia. The ISIN standard is a numbering system that provides a unique and uniform structure for a number and is recognised as the global standard coding identifier for securities and other financial instruments.

ASX in its capacity as National Numbering Agency is a full member of the Association of National Numbering Agencies (ANNA). ANNA is the International Organization for Standardization (ISO) appointed Registration Authority and Maintenance Agency for ISO 6166 which is the ISO international standard that defines the structure of an ISIN.

The structure of an ISIN consists of a total of 12 characters and is comprised of two alphabetical characters which signify the country code followed by the **Basic Number** component and a checksum digit. The Basic Number presently contains a direct representation of the associated ASX Code or market ticker. For example, the ISIN applicable for BHP Billiton Limited Fully Paid Ordinary Shares (ASX:BHP) is represented as AU000000**BHP**4.

This Consultation Paper details a proposal by ASX to change the current Basic Number regime by replacing the associated ASX Code or market ticker with a unique number (e.g. AU0000000**1**4).

The two fundamental drivers for ASX considering a change to the current Basic Number regime are:

- Australia's current practice is not fully compliant with international standards as defined in accordance with ISO 6166; and

- The declining number of ASX Codes available for use

Scope

This Consultation Paper proposes solutions to implement a new Basic Number approach that both complies with the international coding standards and addresses the limited, and diminishing, number of ASX Codes available for use. A preferred approach is recommended along with proposed next steps.

Financial instruments within scope of this consultation include:

- ASX Cash Market Equity and Interest Rate Products

- ASX Exchange Traded Options

- ASX Warrants and Structured Products

- CHESS-Eligible Financial Products listed for Approved Listing Market Operators (i.e. NSX, APX and SIM)

The scope of this Consultation Paper excludes ISINs issued by Austraclear, the Reserve Bank of Australia (RBA) and the Asia Pacific Investment Register (APIR). There are no proposed changes to the country code, as defined under ISO 3166-1, or the check sum algorithm used to calculate the check digit.

Background Issues

While ASX adheres to the ISIN structure defined under ISO 6166, the current Basic Number regime poses two concerns in relation to the number of ASX Codes available for use and the extent of compliance with agreements with ANNA.

Availability of ASX Codes

The availability of ASX codes beginning with certain letters is becoming increasingly limited and while ASX continues to follow the convention of having the first character of an Issuer's name matching the first character of its ASX Code, this limitation will continue.

Analysis conducted by ASX in July 2013 showed ASX Codes starting with 'A', the most common letter, had approximately 39 combinations available. However, a large number of those possible combinations are unavailable due to restrictions associated with the international standard.

While ASX procedures allow for a 3-letter code associated with a listed security trading on the ASX platform to be recycled after one year of its expiry (i.e. one full financial reporting cycle) the ANNA guidelines provide that as a general rule, ISINs should never be re-used. Where reuse is unavoidable, the ANNA guidelines prescribe that reuse shall not occur before expiration of a 10 Year period following the inactivation of the ISIN (e.g. after the maturity date of debt securities or following the removal of an Issuer or a class of securities from the ASX Official List). This rule applies to most financial instruments, except Exchange Traded Options, Futures and other short term money market instruments which can be recycled more regularly.

Working examples

The following examples illustrate present day limitations involving the Basic Number being derived from the ASX Code:

Example 1 (Delisted securities):

Newmont Mining Corporation (ISIN: AU000000NEM3) was delisted and removed from the ASX Official List on 17 February 2010.

ASX could have technically re-issued the ASX Code NEM any time after 17 February 2011. However, the current Basic Number regime would produce the exact same ISIN (AU000000NEM3). This would not be consistent with the ANNA standard which would require, that the code NEM would not able to be used before February 2020.

Example 2 (Warrants):

ASX Warrants are subject to an ASX coding convention. This limits a Warrant Issuer's ability to assign new or replacement Warrant codes without breaching the 10 year moratorium.

Further, the Warrant market has a high turnover rate of ASX Codes as Warrant series can be listed for short periods of time (3 months) or "knocked-out" if they have a barrier feature.

During the 2013 financial year, over 12,983 Warrant series were listed and delisted within the period. Expired Warrants and other structured products are constantly replaced with new series, placing stress on the availability of certain codes and ISIN's (particularly those written over the S&P ASX 200 Index (XJO) underlying). Notwithstanding that ASX has temporary relief from ANNA in relation to the reuse of Warrant ISINs, compliance with the ISO 6166 standard remains inconsistent.

Example 3 (Company name and code changes):

There are also examples around certain events where ASX's ISIN methodology is in contravention of the ISIN guidelines.

Following is an example of where an ISIN should not change according to the ISIN Uniform Guidelines relating to Issuer name and code changes for paperless securities[1]:

Event and Definition	ISIN rules for paperless securities	ISIN rules for physical securities
4.8 Change of name Renaming of a company	For shares: The ISIN code remains unchanged except for those ones where CUSIP Global Services is the relevant NNA. For debt securities: The ISIN code remains unchanged except for those ones where CUSIP Global Services is the relevant NNA	For shares: A new ISIN is allocated for shares in case of exchange of the old certificates. For debt securities: If the bonds have to be exchanged for new certificates, the ISIN must be changed.

For example, if CSR Limited (ISIN: AU000000CSR5) undertakes a name change and wishes to be assigned with a new ASX Code representative of its new name (e.g. Issuer Code change from CSR to **AAA**), the current Basic Number regime would generate a new ISIN (AU000000AAA3) which is not consistent with the ISO international standard.

Summary

The main weaknesses of the current Basic Number regime are summarised as follows:

- inability to generate a unique ISIN that is independent of the associated ASX Code;

- inability to provide flexibility to Issuers and Alternative Listing venues; and

- non-compliance with the ANNA guidelines involving ISO 6166.

Proposed Solution

ASX has considered a range of options that would produce a methodology that provides flexibility for issuers, listed entities and ASX products whilst maintaining compliance with international standards. The following section details a proposed solution which ASX believes is a "best fit" for the Australian marketplace.

Subject to the feedback received in response to this consultation, ASX intends to implement the new Basic Number regime in the second quarter of 2014.

New Basic Number regime

The Basic Number component of an ISIN is the 9 character alpha numeric following the country code. The current derivation of the Basic Number is the ASX Code which is right justified and filled with preceding zeros. **ASX intends to replace this derivation by utilising a sequential 9 character number, commencing at 1 (- e.g. AU0 00000001 N) to form the Basic Number with each new ISIN being generated in sequential order.**

The revised derivation will only apply to all new securities issued after the commencement date and pre-existing ISINs will remain unaffected.

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[1] All financial products traded on ASX Trade are cleared and settled in dematerialised form through the CHESS system.

ASX appreciates that the current Basic Number regime which includes the ASX code has provided embedded intelligence over the years, making it easier to identify a security at a glance when viewing an ISIN. The Australian financial market has grown considerably over the past decade reflecting many years of innovation and development, and is amongst the fastest growing and most sophisticated in Asia. It is important that, where appropriate, Australia adopts international standards and processes in establishing the technical framework that underpins our markets.

The Australian market is no longer solely about "equity" products and listed companies. In today's environment the ASX caters for a substantially broader exchange-traded market and with this expansion in scope comes the need to pro-actively address the limitations identified in this document.

Consultation Process

You are invited to comment on the proposal to replace the Basic Number component discussed in this paper. As well as responding to the specific proposal in this paper, any other feedback or suggestions relevant to ISINs is welcome. In particular ASX would be interested in feedback on:

- the impact, if any, a change to the ISIN allocation process would have on your internal systems and processes; and
- an indication of the time required to make any necessary changes in response the new ISIN allocation process.

Technical Information

ISIN structure

ISO 6166 is the international standard that defines the structure of an ISIN together with ISO 3166 which governs the designation of the ISO Country Code. The National Securities Identifying Number (NSIN) for ISINs currently issued by ASX is the ASX Code.

ISO COUNTRY CODE		NSIN IDENTIFIER		CHECK SUM		ISIN Identifier
2 CHARACTERS	+	9 CHARACTERS	+	1 CHARACTER	=	12 CHARACTERS
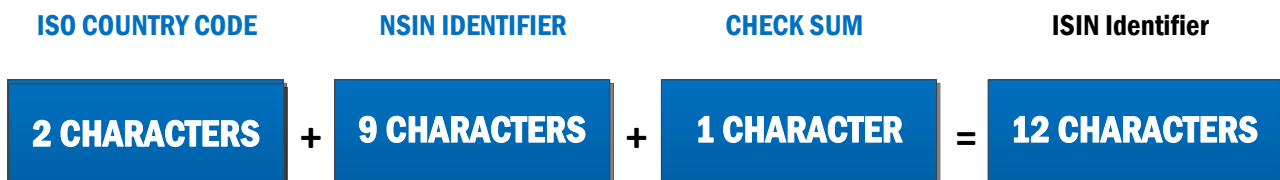
Example: BHP Billiton Limited Fully Paid Ordinary Shares (ASX Code: BHP)

AU	+	000000BHP	+	4	=	AU000000BHP4

Example: Macquarie 5050 XJO Index Call Warrant 18-Sep-13 (ASX Code: XJOWMF)

AU	+	000XJOWMF	+	8	=	AU000XJOWMF8

Derivation of the ISIN for Australian Securities

1. The inputs to the derivation of the ISIN for an Australian security are:

- the ASX code for the security; and

- ISO Standard 6166 for securities identification

2. The ISIN for a security consists of:

(a) **a prefix**, using the alpha-2 country code specified in ISO 3166; i.e. AU for Australia;

(b) **the Basic Number**, which is 9 characters (alphanumeric) in length, and is the existing national identifier for the security. Where the Basic Number consists of fewer than 9 characters, it is right justified with zeros inserted in front of the number. The Basic Number of Australian securities is the ASX code, comprising from 3 to 6 alphabetical characters;

(c) **a check digit**, computed according to modulus 10 "double-add-double" algorithm presented in the ISO standard.

3. **Example derivation of an Australian ISIN [e.g. TNT June 1991 Options; ASX code: TNTO]**

3.1 Applying ISO 6166, the ISIN will be of the form:

AU00000TNTO*

where * represents the check digit to be calculated according to a prescribed algorithm.

3.2 To compute the check digit, an **all numeric representation** of the leftmost eleven characters of the ISIN is established by substituting numeric values for alphabetical characters in accordance with the following table:

A = 10	F = 15	K = 20	P = 25	U = 30	Z = 35
B = 11	G = 16	L = 21	Q = 26	V = 31	
C = 12	H = 17	M = 22	R = 27	W = 32	
D = 13	I = 18	N = 23	S = 28	X = 33	
E = 14	J = 19	O = 24	T = 29	Y = 34	

ASX Market Information

Impacted ReferencePoint products

ReferencePoint provides a comprehensive range of security reference data, corporate action services and end of day prices for equities, warrants and options traded on ASX Trade. Appendix '1' details a list of reference data signals which currently provide for an ISIN field.

Sample data files

Subscribers to ReferencePoint Master List and ReferencePoint Corporate Action products are advised that test files for E01 & E02 (both csv & fixed format) and ReferencePoint Corporate Action E34 (both csv & fixed format) will be made available for testing.

ISIN Code lookup tool

ASX will provide an ISIN and ASX Code lookup tool on the ASX Website for ease of reference in addition to a dedicated page devoted to ISIN matters.

ISO Standards

The following ISO standards relate to the International Securities Identification Numbering system[2]:

ISO 6166 – Securities and related financial instruments – International securities identification numbering system

ISO 3166 – Codes for the representation of names of countries and their subdivisions

ISO 4217 – Codes for the representation of currencies and funds

ISO 10962 – Securities and related financial instruments – Classification of financial instruments (CFI code)

Useful Links

International Organization for Standardization http://www.iso.org/iso/home.html

Association of National Numbering Agencies http://www.anna-web.com/index.php

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[2] Version and part references have been intentionally removed.

Appendix 1 – ReferencePoint Products

Market data signals containing ISIN fields

The following list details all ReferencePoint market data products which contain an ISIN field:

ReferencePoint Master List (E02):

SK – Security Details – Equity

SL – Security Details – IR & CN

SM – Security Details – Company Options

SO – Security Details – Warrants

SP – Security Details – ETO

SK – Security Details – Equity

SK – Security Details – Equity

ReferencePoint Corporate Actions Intraday A31,32,33,34, Corporate Actions EoD E34

Appendix 2 - Check Digit Algorithm

Formula for computing modulus 10 "Double-Add-Double" check digit[3]

The following steps are involved in this calculation:

a) Step 1

Alphabetic characters are assigned the numeric values shown in the following table:

Character	Value	Character	Value	Character	Value	Character	Value	Character	Value
A	10	F	15	K	20	P	25	U	30
B	11	G	16	L	21	Q	26	V	31
C	12	H	17	M	22	R	27	W	32
D	13	I	18	N	23	S	28	X	33
E	14	J	19	O	24	T	29	Y	34
								Z	35

b) Step 2

Double the value of alternate digits beginning with the first right-hand digit (low order), including zeros.

c) Step 3

Add the individual digits comprising the products obtained in step 2 and each of the unaffected digits in the

original number.

d) Step 4

Subtract the total obtained in step 3 from the next higher number ending in 0 [this is the equivalent of

calculating the "tens complement" of the low order digit (unit digit) of the total]. If the total obtained in step 3 is

a number ending in zero (30, 40, etc.), the check digit is 0.

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[3] The calculation steps and related examples contained in this Appendix are a reproduction of *ISO 6166 (Annex C) 'Formula for computing modulus 10 "Double-Add-Double" check digit'* and has been reproduced with permission from SAI Global Ltd under Licence 1309-c063". The standard may be purchased online by visiting http://www.saiglobal.com/

EXAMPLES

IBEX 35

	ES	0	S	I	0	0	0	0	0	0
14	28	0	28	18	0	0	0	0	0	0
21	21	2	12	12	1	2	1	2	1	2
24	48	0	216	116	0	0	0	0	0	0

2 + 4 + 4 + 8 + 0 + 2 + 1 + 6 + 1 + 1 + 6 + 0 + 0 + 0 + 0 + 0 =   35

                                                                                            Check digit 5

                                                                                            —

                                                                                            40

Hitachi Ltd. Shares

	JP	3	7	8	8	6	0	0	0	0
19	25	3	7	8	8	6	0	0	0	0
21	21	2	1	2	1	2	1	2	1	2
29	45	6	7	16	8	12	0	0	0	0

2 + 9 + 4 + 5 + 6 + 7 + 1 + 6 + 8 + 1 + 2 + 0 + 0 + 0 + 0 =   51

                                                                                            Check digit 9

                                                                                            —

                                                                                            60

Allianz Finance II 5 3/8 % without expiration date

DE 0 0 0 A 0 G N P Z

Allianz Finance II 5 3/8 % without expiration date

	DE	0	0	0	A	0	G	N	P	Z
13	14	0	0	0	10	0	16	23	25	35
12	12	1	2	1	21	2	12	12	12	12
16	18	0	0	0	20	0	112	26	210	310

1 + 6 + 1 + 8 + 0 + 0 + 0 + 2 + 0 + 0 + 1 + 1 + 2+ 2 + 6 + 2 + 1 + 0 + 3 + 1 + 0 =   37

                                                                                            Check digit 3

Source: ISO®   —

                                                                                            40