



London
STOCK EXCHANGE

Market Level SEDOL Allocation

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Date: 12 February 2008

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1. Introduction

This paper provides notification that from May 2008 the London Stock Exchange (the Exchange) will:

- a) Begin allocation of SEDOL codes to securities traded on multi-lateral trading facilities (MTFs) that track listed instruments, such as Virt-x and Chi-x.
- b) Begin allocation of separate SEDOL codes to recognise securities trading in multiple currencies on the same trading platform.

This paper also outlines information and examples on the allocation of new market level SEDOL codes to securities traded on multiple trading platforms within the same country, whilst retaining the existing country SEDOL identifiers. The allocation of market SEDOLs is due to commence in September 2008.

The questionnaire, attached in section 8, gives you the opportunity to provide us with feedback on these initiatives, which should be returned to the Exchange by 31 March 2008.

The Exchange is currently undertaking a large SEDOL data quality review and a second paper will be issued in Q2 2008 to consult the market on our planned reference data product developments.

To ensure your organisation has an opportunity to provide feedback, we would be grateful if you could please forward this document to the relevant contact(s).

2. Background

The SEDOL Masterfile™ service has been in operation for over 30 years and currently provides information on over 2.4 million multi-asset class securities traded on UK and International markets.

Various organisations process SEDOL Masterfile data to aid security identification in their business activities. For example, to assist with portfolio valuation, trade execution, processing price feeds, as a cross reference to other identifiers, price validation and post-trade aggregation.

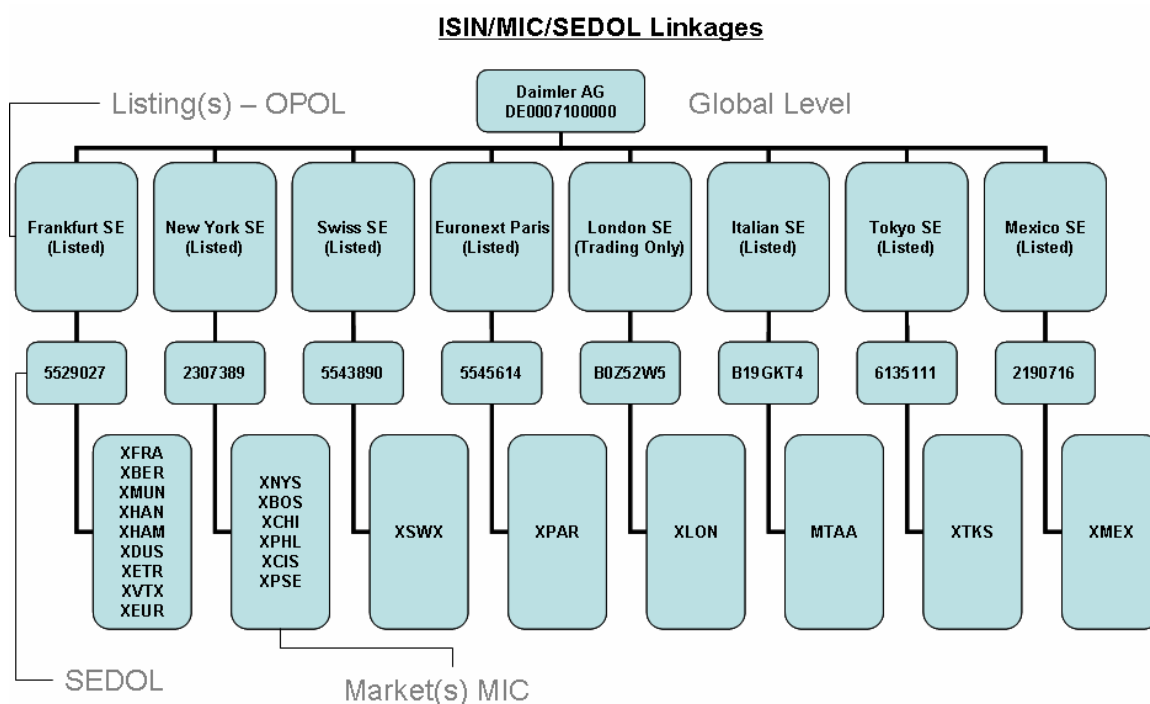
In 2004, due to a shortage of remaining numeric SEDOL code combinations available under the previous code allocation system, the service underwent a number of enhancements, and in March 2004 was re-launched as the SEDOL Masterfile™ service. As well as issuing alphanumeric SEDOL codes, this new service addressed three major industry issues with security identification:

- Uniqueness - identification of individual securities and the countries and markets where they are traded
- Timeliness - code allocation on a near real time basis
- Commonality - extended coverage of the SEDOL code to cover all asset classes

3. Country Level Identification

As per the diagram below, the current allocation rule is that SEDOLs are assigned to the Official Places of Listing (OPOL), or in absence of listings, the places of trade, but only one SEDOL is allocated per country. Two exceptions apply to this, one being UK Exchange Traded Funds (ETFs) where a separate SEDOL code is allocated for each trading currency on the Exchange's trading platform, and Singapore Stock Exchange securities due to different lot size.

Prior to the launch of the SEDOL Masterfile service in 2004, participants were consulted on the allocation of SEDOL codes at the market level. The results of this research were positive, with many organisations indicating a preference for SEDOL codes to uniquely recognise the places of trade, without the requirement to link to additional fields of reference data. However, this development was postponed to ensure that the market had sufficient time to implement the alphanumeric numbering system changes.



Although allocation at the country level uniquely identifies instruments where there is one trading venue per country, this does not provide instrument uniqueness for countries with multiple pools of liquidity (e.g. the US, Germany and Japan). In this instance, Daimler AG (DE0007100000) currently has one country SEDOL for Germany, but is traded on eight different exchanges within Germany, currently differentiated by Market Identifier Codes (MICs).

The introduction of MTFs such as Virt-X and Chi-X operate outside set geographical boundaries and carry multiple priced lines of the same stock from different markets. As a consequence, mapping the country level SEDOL to the MIC of the MTFs cannot guarantee uniqueness.

4. Drivers for change

As industry and regulatory requirements evolve there is a growing demand for more accurate and granular reference data. An example of this is the recent introduction of multiple MICs per exchange to link ISINs and SEDOLs to specific trading segments, requiring participants to redefine their mapping tables further.

In addition to this general trend for a more granular database, customer feedback indicates that the “sharing” of SEDOL codes across multiple trading venues can cause confusion, particularly with order management systems.

4.1. Order Management Systems

The existing rule of “one SEDOL per country” requires order management systems to share the “country level SEDOLs” across multiple trading venues, frequently resulting in manual intervention to ensure unique instrument identification. With the introduction of MTFs, with no designated country of origin, the frequency of sharing “country level SEDOLs” has increased. Furthermore, trading platforms providing liquidity in multiple currencies creates additional challenges (as discussed below).

4.1.1. Virt-x

For European securities, Virt-x associates itself with the domestic listing. For non-European securities, regardless of a domestic listing, Virt-x associates itself with the London listing.

As examples:

- UBS AG as a Swiss company listed on the Swiss Stock Exchange, Virt-x associates itself with the Swiss listing, regardless of any other listings.
- Deutsche Bank AG as a German company, dual-listed on the Frankfurt and Swiss Stock Exchanges, Virt-x associates itself with the domestic listing (Frankfurt), regardless of the Swiss listing.
- Canadian General Investments – as a Canadian company (non-European) Virt-x associates itself with the London listing, regardless of the domestic listing (Toronto).

In each example, within the SEDOL Masterfile the Virt-x trading lines are linked to the relevant listing by the Country SEDOL and the Virt-x MIC code.

4.1.2. Chi-x

Chi-x trading lines are associated to the “country level SEDOL” to reflect the home market of relevance and similar to the Virt-x example above will link an existing SEDOL to a Chi-x MIC (CHIX).

In addition, Chi-x may trade multiple lines of the same security in different currencies to reflect more than one home market and as such assign multiple “country level SEDOLs” to the Chi-x platform (see example below).

Royal Dutch Shell (GB00B03MLX29) is traded on the Chi-x platform using the GB SEDOL (B03MLX2) in GBP to reflect the London Stock Exchange home market. In

addition, the same security is traded using the Dutch SEDOL (B09CBL4) in EUR to reflect the Amsterdam Euronext home market.

4.1.3. Multiple currencies

In addition to the Chi-x example above, securities traded in multiple currencies on the same trading platform also exists on the London Stock Exchange and other international markets (e.g. Argentina). In these instances linking the “country level SEDOL” to the home market MIC does not provide uniqueness and creates the risk of trading the non desired currency.

4.1.4. CFDs

London Stock Exchange traded CFDs, to be launched in 2008/09, will be traded as a joint book and will therefore use the same ISIN code for the CFD and the equity line. The allocation of a new SEDOL to recognise the CFD line will ensure post trade processing uniqueness.

4.2. Post-trade Aggregation

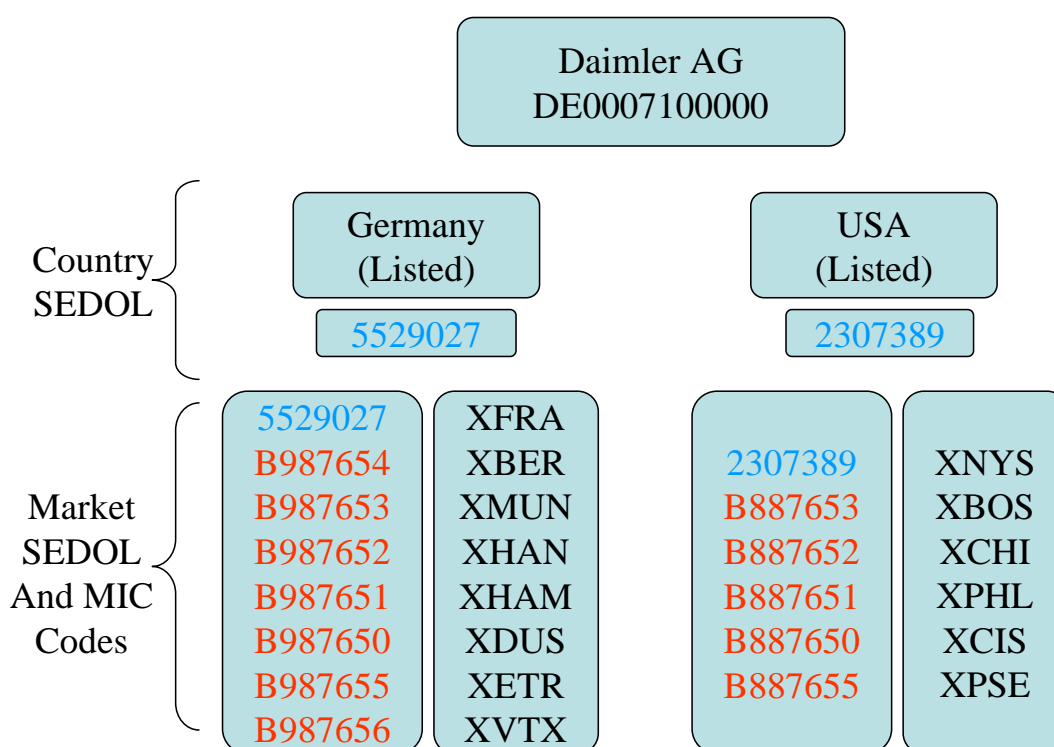
As with pre-trade order management, there are complications in the back office when sharing “country level SEDOLs” across multiple places of trade. Particularly when using the SEDOL as an aggregator for position keeping and reconciliation in inventory and settlement systems. Again, the absence of a market SEDOL code to uniquely recognise the place of trade requires the “country level SEDOL” to be mapped to additional items of reference data to guarantee uniqueness.

5. Market Level Allocation

The SEDOL codes currently allocated at the “country level” will remain and continue to be the first SEDOL that is assigned to a country, and commonly used by inventory and settlement systems.

In addition, “market level SEDOLs” will be allocated and assigned to all instances where a security is traded and a MIC exists, even within a country.

The following diagram demonstrates the proposed ISIN, SEDOL and MIC relationship. Note, to avoid confusion, only the German and US trading lines have been used in this example.



1. One Country SEDOL is allocated per country for the Official Place of Listing (OPOL), or place of trade. Note that this will also be the Market SEDOL code where there is no other SEDOL assigned to the security in that country.
2. One or many Market SEDOL codes will be assigned to denote the place(s) of trading along with the MIC.

Note: If an instrument moves markets within a country (e.g. from NYSE to NASDAQ), the existing Country SEDOL will remain “Active” but will no longer be linked to the NYSE MIC (XNYS) and a new SEDOL will be allocated against the NASDAQ trading line.

6. SEDOL Masterfile Rules and Technical Specifications:

6.1. Security Table

For those customers who take data directly from the Exchange, no changes are envisaged at this time to the Security Table.

6.2. Security Market Table

An additional field called Market SEDOL will be added to the Security Market Table and a Traded Currency field may also be included. To ensure the correct linkages are used, the Country SEDOL codes will also be included in the Market Security table, together with a cross-reference to the relevant MIC. Based on the current SEDOL Masterfile coverage, it is estimated that 41,000 new Market SEDOL codes will be allocated to equity related stocks.

6.3. Example 1 - Daimler AG

The tables below demonstrate in more detail how the Market and Country SEDOL will be assigned to Daimler AG. Note, the Chi-x and Virt-x lines are highlighted in bold to show the new Market SEDOL being linked to the Security ID of the “Global Primary SEDOL” (i.e. Germany).

Security Table - Country Level			
ISIN	Country Sedol	SecurityID	Country
DE0007100000	2307389	452304	US
DE0007100000	5529027	442586	DE
DE0007100000	5543890	446800	CH
DE0007100000	6135111	453367	JP
DE0007100000	2190716	796266	MX
DE0007100000	B0Z52W5	100910789	GB
DE0007100000	5545614	447053	FR
DE0007100000	B19GKT4	101204068	IT

Security Market Table			
MIC	Market sedol	SecurityID	Currency
XNYS	2307389	452304	USD
XPSE	B998765	452304	USD
XCHI	B998766	452304	USD
XCIS	B998767	452304	USD
XBOS	B998768	452304	USD
XPHL	B998769	452304	USD
ARCX	B998770	452304	USD
XFRA	5529027	442586	EUR
XDUS	B923456	442586	EUR
XHAN	B923455	442586	EUR
XMUN	B923454	442586	EUR
XETR	B923453	442586	EUR
XBER	B923452	442586	EUR
XEUR	B923451	442586	EUR
XHAM	B923450	442586	EUR
XVTX	B923449	442586	EUR
CHIX	B923448	442586	EUR
XSWX	5543890	446800	CHF
XTKS	6135111	453367	JPY
XMEX	2190716	796266	MXN
XLON	B0Z52W5	100910789	GBP
XPAR	5545614	447053	EUR
MTAA	B19GKT4	101204068	EUR

6.3.1. Example 2 - Royal Dutch Shell

The tables below demonstrate how the Market and Country SEDOLs will be assigned to Royal Dutch Shell for trading on the London Stock Exchange home market, Chi-x London, Chi-x Amsterdam and Virt-x.

London Stock Exchange

From May a new "Market SEDOL" will be assigned for the EUR currency traded line as per the example.

Security Table - Country Level			
ISIN	Country Sedol	SecurityID	Country
GB00B03MLX29	B03MLX2	100101882	GB

Security Market Table			
MIC	Market sedol	SecurityID	Currency
XLON	B03MLX2	100101882	GBp
XLON	B03MLX3	100101882	EUR

Chi-x London and Chi-x Amsterdam

Under the Chi-x model it is possible to have the same security traded on two different currencies. In this case a SEDOL will be allocated to each currency.

Security Table - Country Level			
ISIN	Country Sedol	SecurityID	Country
GB00B03MLX29	B03MLX2	100101882	GB

Security Market Table			
MIC	Market sedol	SecurityID	Currency
XLON	B03MLX2	100101882	GBp
CHIX	B03MLX4	100101882	GBp

Security Table - Country Level			
ISIN	Country Sedol	SecurityID	Country
GB00B03MLX29	B09CBL4	100272847	NL

Security Market Table			
MIC	Market sedol	SecurityID	Currency
XAMS	B09CBL4	100272847	EUR
CHIX	B09CBL5	100272847	EUR

Virt-x

This example demonstrates how the Market SEDOL will be allocated against Virt-x securities.

Security Table - Country Level			
ISIN	Country Sedol	SecurityID	Country
GB00B03MLX29	B03MLX2	100101882	GB

Security Market Table			
MIC	Market sedol	SecurityID	Currency
XLON	B03MLX2	100101882	GBp
XVTX	B03MLX5	100101882	GBp

7. Commercials

The introduction of Market SEDOL codes will be covered under the existing SEDOL pricing policy guidelines.

8. Market Level SEDOL Codes - Questionnaire

1. What sources do you currently use to access SEDOL codes?

2. In what types of internal systems/business functions do you currently use SEDOL codes?

3. What is the approximate volume of unique SEDOL consumption across your company (Please **highlight** as appropriate):
 - a. 1-1,000 SEDOL codes
 - b. 1,001 – 5,000 SEDOL codes
 - c. 5,000 – 10,000 SEDOL codes
 - d. 10,000 – 100,000 SEDOL codes
 - e. >100,000 SEDOL codes

4. Do you agree that Market SEDOLs will benefit your organisation as follows? (Please **highlight** as appropriate)
 - a. Reduce risk of failed trades
 - b. Facilitate reference data maintenance
 - c. Improve straight-through processing (STP) potential
 - d. Facilitate instrument loading
 - e. Facilitate reconciliations,
 - f. Facilitate regulatory reporting,
 - g. Facilitate settlement
 - h. Facilitate aggregation
 - i. Other (Please specify).

5. If Market SEDOLs will **not** benefit your organisation, please state why:

We would like to thank you for taking the time to complete this questionnaire. The results will be compiled and the conclusions distributed to all respondents in April 2008.

Please return this questionnaire to Oliver Lampe as follows:

By email:

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By Post:

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