

Market Discussion

Barcoding Standard Definition for OTC Derivatives

Purpose

The purpose of this paper is to define a set of fields and formats to be used by market participants in order to index their own and counterparty's documents.

It is proposed that any barcoding solution is delivered in phases, with the core fields being addressed in the initial stage.

Current State

- Adding barcodes onto documents is a new concept and a small number of institutions have implemented trial solutions, with the aim of recognising their own documents when these are received back.
- Due to the fact that the main objective of barcoding is to ensure that own documents can be correctly identified, a broad-based standard has not been put in place for the barcode parameters or their formats.
- The proof of concept or trial has been carried out exclusively using 1 Dimensional (1D) barcodes.

Commentary

- The ISDA Barcoding sub-group has discussed standards regarding the barcode parameters. It was agreed that fields should be optional to ensure a level of flexibility.
- A 2 Dimensional (2D) Barcode has the capacity to contain more fields, than a 1D Barcode, and the content of 2D barcodes is more robust in terms of quality deterioration. In order to accommodate the amount of information required for indexing counterparty documents, the use of 2D barcodes appears to be the only feasible solution.
- It will be possible for fields to be added or removed (from the set of barcode parameters), without having any implications on the existing fields. This is simply a matter of configuration, which will need to be co-ordinated amongst the group.
- The group hopes that the standards will be adopted by all barcode users for an optimised indexing process.
- It is proposed that the barcode solution is implemented in phases, with the first iteration addressing the core parameters. Additional fields such as product type, Business Event (New, Novation...), Reference Entity/Underlying, Agent/Broker

The precise documentation of each Transaction remains the responsibility of the parties concerned. ISDA assumes no responsibility for any use to which this Standard Definition may be put.

Each party following the recommendations contained in this Standard Definition should satisfy itself that those recommendations are appropriate to reflect the commercial intentions of the parties.

Barcode Parameters

direction of the trade and multiple currency trades will be catered for in one of the subsequent releases. It is acknowledged that more fields could be identified at a later stage.

- Since various institutions have different field requirements, the list of fields should cater for the requirements of the majority of institutions.
- It is proposed that the sequence of the fields is consistent (hence, BIC1 is always to be displayed first).
- In this paper, the term “document” refers to any operational notice including but not limited to confirmations, option exercise notices and corporate action notices.

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Each party should satisfy itself that these recommendations are appropriate to reflect the commercial intentions of the parties in relation to any Transaction.

Standard Barcode Parameters

- **BIC 1**

- This refers to the sender's BIC (the SWIFT ISO Bank Identifier). This is unique and constant per legal¹ counterparty of the transaction.

- Field Definition: Characters, 11

- **BIC 2**

- This refers to the recipient's BIC (the SWIFT ISO Bank Identifier). This is unique and constant per legal¹ counterparty of the transaction.

- Field Definition: Characters, 11

- **Trade Ref 1**

This refers to the sender's trade identifier. It is possible for the document bearing the same trade id to be forwarded more than once.

- Field Definition: Characters, 20

- **Trade Ref 2**

This refers to the receiver's trade identifier if known. It is possible for the document bearing the same trade id to be forwarded more than once.

- Field Definition: Characters, 20

- **Trade Date**

Trade Date of the trade, as stated on the document.

- Field Definition: Date (YYYY-MM-DD), 8 characters, Date punctuated with (-)

- **Effective Date**

Effective date of the trade, as stated on the document.

- Field Definition: Date (YYYY-MM-DD), 8 characters, Date punctuated with (-)

¹ The BICs should refer to the contractual counterparties of the trade (in the case of agency trades, the agent should not be referenced. An agent field will be considered as a future enhancement).

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Barcode Parameters

- **Maturity/Exercise/Expiry Date**

The unadjusted Maturity/Exercise/Expiry date of the trade as stated on the document.

- Field Definition: Date (YYYY-MM-DD), 8 characters, Date punctuated with (-)

- **Currency**

Currency of the trade as specified on the document. Where more than one currency appears in the trade, the currency field is to be left blank.

- Field Definition: ISO currency code, 3 characters

- **Notional Amount/ Number of units**

Notional amount of the trade as specified on the document.

- Field Definition: Integer, 13 characters. Absolute value. ²No separators. No decimal places, values rounded to the nearest whole number.

- **Fixed Rate or Strike Price depending on the Product type. This is to be labelled "Rate".**

Fixed Rate or Strike Price as it appears on the document.

- Field Definitions: 6 digits, and 4 decimal places³.

- **End of Document marker**

It is not required to have an end of document marker, as the barcode recognition tool should be able to detect a new trade reference, which would indicate a new document being received.

² As per FpML's standard specification. There are no restrictions regarding the character lengths however.

³ The decimal space specification has been validated against the FpML standards.

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Barcode Parameters

Barcode Location

- **First page of the document (after the fax coversheet) and the last page of the document.**

It is proposed to have barcodes on the first page of the document (after the fax coversheet) and the last page of the document (Fig. 1). This will ensure that confirmations received in a batch will be individually indexed (Fig. 2).

The application of barcodes on every page of the confirmation is optional (Fig.3).

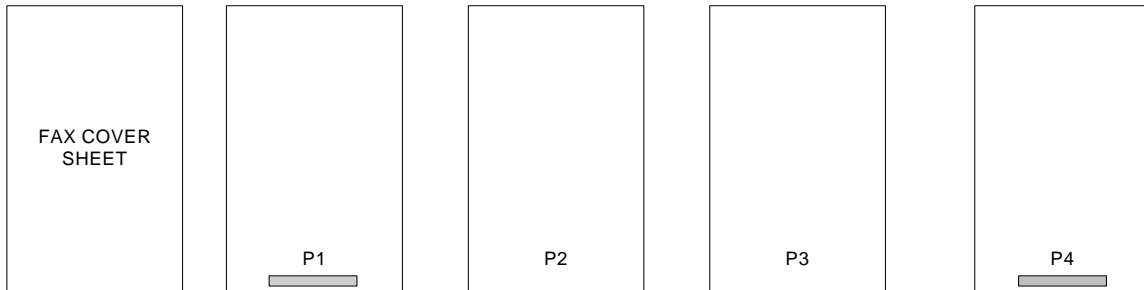


Fig. 1 - The Barcode is applied on the first and last page of the confirmation

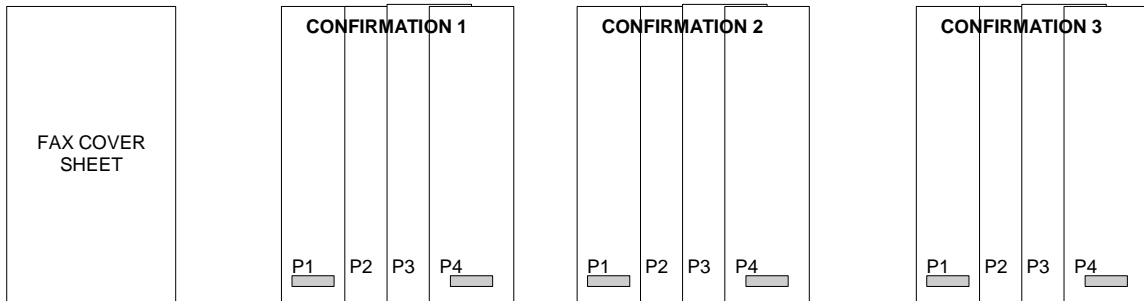


Fig. 2 - Barcodes on batch recieved confirmations.

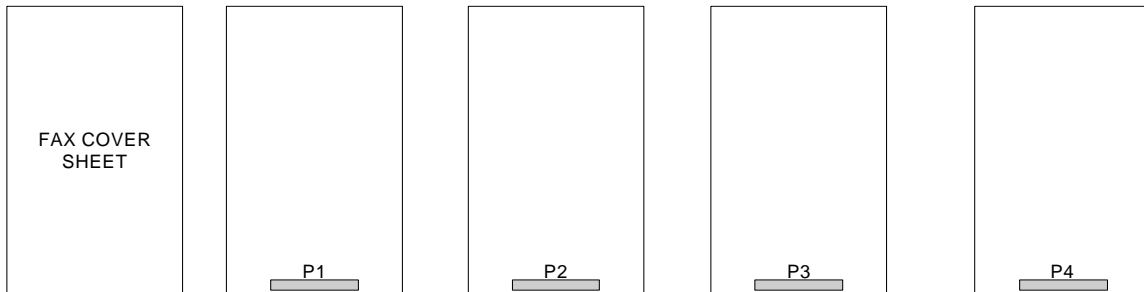


Fig. 3 - The Barcode is applied on every page of the confirmation.

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Suggested Technical Standards

It is proposed to use DataMatrix (ISO/IEC16022) as the standard 2D barcode, due to the following characteristics of the standard:

- Its capacity to contain a large amount of data per unit area
- Its high level of fault tolerance
- It is in the public domain (can be used without any licensing fees or royalty charges)

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Barcode Parameters**Sample Barcode Parameter**

First page of Confirmation (or every page of the confirmation if this approach is chosen)

CSFBGB2LXXX/ABNAFRPPXXX/89020871FPNEW#####/12345678AMND#####
/2004-06-07/2004-06-07/2008-06-07/ EUR/250000000#####/123 ###.123#

Last Page of Confirmation:

CSFBGB2LXXX/ABNAFRPPXXX/89020871FPNEW#####/12345678AMND#####
/2004-06-07/2004-06-07/2008-06-07/ EUR/250000000#####/123 ###.123#

represents the padding values where all of the allowed number of characters have not been used for the parameter.

The above barcode parameters would represent the following hypothetical scenario:

Confirmation sender: CSFB
 Confirmation Receiver: ABN Amro
 CSFB's Trade Reference Number (Trade Ref 1): '89020871FPNEW'
 ABN Amro's trade reference number (Trade Ref 2): '12345678AMND'
 Trade Date: 2004-06-07
 Effective Date: 2004-06-07
 Maturity Date: 2008-06-07
 Currency: EUR
 Notional: 250000000
 Fixed Rate: 123.1234

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