Derivatives Service Bureau (UPI)

CHANGE REQUEST FORM

Version	State	Author	Date	Description
1	Draft	M. Surop	30 March 2021	Initial Document
2	Draft	M. Surop	29 April 2021	Updated ToR, Attribute Data Dictionary & Comments.
3	Draft	M. Surop	28 June 2021	Updated error message for ISIN validation.
4	Draft	M. Surop	19 July 2021	Removed active hyperlinks in Data Dictionary; Amended References section with standard text; Removed Short Name comment in the Comment section.
5	Draft	M. Surop	24 Sept 2021	Updated error message for ISIN validation.

Title	EQUITY FORWARD Price Return Basic Performance Single Name Template Definition		
Background	The following CRF presents a specification for the generation and retrieval of a Unique Product Identifier for the following product: • **Equity : Forward : Price_Return_Basic_Performance_Single_Name**	**DSB-ID**	**UPI-0121**
		Type	New Template
		Owner	M. Surop
		Version	5
		State	Draft
Terms of Reference			
Scope	• This CRF specifies the product definition required for the generation / retrieval of a UPI only. • This CRF covers both the input (Request) and output (Record) templates. • Support for local jurisdiction / alternate underlier identifier input is currently out of scope. • Support for CFI 2019 values is currently out of scope.		
Requirements	• The product definition will conform to ISO 4914 (UPI). • Where possible, the product definition is to be based on the attributes, values and behaviour of the equivalent OTC ISIN. • The product definition will return a product short name (FISN). • All UPI records stored on the DSB RDL will include the ISO 10962 (CFI) code associated with the UPI along with an equivalent text value for all attributes that are included in the definition of the CFI.		
Dependencies	• This specification is dependent on final sign-off of the ISO 4914 (UPI) specification. • This specification is dependent on PC approval for the use of the OTC ISIN definitions as a basis for the UPI. • This specification is dependent on PC approval for the inclusion of ISO 4914 (UPI) conditional attributes. • This specification is dependent on TAC Approval for the DSB approach to ISO 10962 (CFI:2019) migration. • This specification is dependent on the provision of a human-readable alias for the primary underlier for inclusion in the Short Name (FISN) and a human-readable alias for the Contract Specification. • The format of the Short Name is dependent upon the outcome of the ISO 18774 (FISN) systematic review.		
Assumptions	• This specification assumes that, unless stated, all values and behaviours are based on those of the equivalent OTC ISIN product definition. • This specification assumes that no input values are to be defaulted by the system. • This specification is based on the current ISO 4914 (UPI) specification (CD) – including attributes that are not currently supported by the equivalent OTC ISIN. • This specification is based on the DSB's current equivalent OTC ISIN product definition. • This specification is based on the attributes and values defined in ISO 10962 (CFI:2015). • In order to provide an example Short Name, this specification defines a format for this attribute that may not conform to the eventually agreed FISN format for the UPI. This specification assumes that the Short Name is defined using the same attributes (where available) as the OTC ISIN Short Name. • Where possible, this specification derives GUI details from the ISO 4914 (UPI) specification for attributes that are not included in the current OTC ISIN product definition.		

<table>
<tr><td></td><td>The display information in the GUI for the existing attributes (and values) are taken from the OTC ISIN. If such information contains an "ISIN" in the description, replace the value into "UPI".
The specification for UPI does not include expiry date as part of the attributes, hence "expired" status does not apply.</td></tr>
</table>

Request Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	Origin
Header Section	Asset Class	Set	M	Equity		CFI:2015 Char#2 (JE****)	ISIN
	Instrument Type	Set	M	Forward		CFI:2015 Char#1 (JE****)	ISIN
	Product	Set	M	Price_Return_Basic_Performance_Single_Name			ISIN
	Level	Set	M	UPI			NEW
Attribute Section	Underlier ID	String	M	US9220428588	See CRF (Validations)		NEW
	Underlier ID Source	String	M	ISIN	[ISIN]	Internal	NEW
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Forward price of underlying instrument, Spreadbets]	CFI:2015 Char#5 (JE****)	ISIN
	Delivery Type	Enum	M	CASH	[CASH, PHYS]	ISO 20022	ISIN

Record Template Layout

Section	Attribute	Format	Cat	Example Value	Validation / Derivation	Enum Source	Origin
Header Section	Asset Class	Set	M	Equity		CFI:2015 Char#2 (JE****)	ISIN
	Instrument Type	Set	M	Forward		CFI:2015 Char#1 (JE****)	ISIN
	Product	Set	M	Price_Return_Basic_Performance_Single_Name			ISIN
	Level	Set	M	UPI			NEW
	Template Version	Integer	D	1			ISIN
Attribute Section	Underlying Instrument ISIN	String	M	US9220428588	See CRF (Validations)		ISIN
	Return or Payout Trigger	Enum	M	Forward price of underlying instrument	[Forward price of underlying instrument, Spreadbets]	CFI:2015 Char#5 (JE****)	ISIN
	Delivery Type	Enum	M	CASH	[CASH, PHYS]	ISO 20022	ISIN
Identifier Section	UPI	String	D	QZ5MW5V54H51	UPI	ISO 4914	NEW
	Status	String	D	New			ISIN
	Status Reason	String	D	<null>	Not applicable to a New record		ISIN
	Last Update Date Time	DtTm	D	2021-03-30T07:29:02	YYYY-MM-DDThh:mm:ss		ISIN
Derived Section	Classification Type	String	D	JESXFC	See CRF (Derivations)	ISO 10962: 2015	ISIN
	Short Name	String	D	NA/Fwd Sgle Stk Fwd Pr	See CRF (Derivations)	ISO 18774: 2015	NEW
	Underlying Asset Type	String	D	Single Stock	Fixed value	CFI:2015 Char#3 (JES***)	ISIN
	CFI Delivery Type	String	D	Cash	See CRF (Derivations)	CFI:2015 Char#6 (JE****)	NEW

<table>
<tr><th colspan="2">Product Definition</th></tr>
<tr><td>Attributes</td><td>See Template Layout (above).</td></tr>
<tr><td>Validation</td><td>1. Underlier ID
The following validation will apply for Underlying Instrument ISIN: The input text by user must be in 12 characters (2 alpha, 9 alphanumeric, 1 numeric). The input text must not have a prefix of “QZ” or “EZ”. A syntactic validation is being performed to confirm an ISIN when hitting create. If the input ISIN is less or more than 12 characters and/or is not aligned with the above pattern before hitting create, an error message will apply “Value must match the pattern ^(?!(EZ|QZ))[A-Z]{2}[A-Z0-9]{9}[0-9]$.” If the input ISIN is not aligned with the above pattern after hitting create, an error message will apply "Error: /Attributes/UnderlierID/0: ECMA 262 regex "^(?!(EZ|QZ))[A-Z]{2}[A-Z0-9]{9}[0-9]$" does not match input string "[user input]". If the input ISIN is aligned with the pattern criteria but ISIN value does not conform with syntactic validation, an error message will apply "Error: ISIN/s must be valid".</td></tr>
<tr><td>Attribute Data Dictionary</td><td>This section provides the exact reference or source of the attribute.
<table>
<tr><th>Full Name</th><th>Source</th><th>Type</th></tr>
<tr><td>Delivery Type</td><td>ISO 20022 FinancialInstrumentReportingReferenceDataReportV01</td><td>Enums [CASH, PHYS]</td></tr>
<tr><td>CFI Delivery Type</td><td>ISO 10962 Classification of financial instruments (CFI code)</td><td>Enums [Cash, Physical]</td></tr>
<tr><td>Return or Payout Trigger</td><td>ISO 10962 Classification of financial instruments (CFI code)</td><td>Enums [Forward price of underlying instrument, Spreadbets]</td></tr>
<tr><td>Underlying Instrument ISIN</td><td>Not Available</td><td>Max of 12 text (pattern)
[A-Z] – firsts 2 characters</td></tr>
</table></td></tr>
</table>

<table>
<tr><td></td><td></td><td></td><td>[A-Z], [0-9] – Next 9 characters
[0-9] – Last value is based on ISIN calculation</td></tr>
<tr><td>Normalization</td><td colspan="3">Not required.</td></tr>
<tr><td rowspan="4">Derivation</td><td colspan="3">This section provides additional details to the derivation logic specified in the Template Layout sections (above).</td></tr>
<tr><td>Classification Type</td><td colspan="2">Concatenation of the following attributes/values:
• Instrument Type: “J”
• Asset Class: “E”
• Underlying Asset Type: “S”
• Not applicable/undefined: “X”
• Return or Payout Trigger: from Request.ReturnorPayoutTrigger…
- Forward price of underlying instrument → F
- Spreadbets → S
• Delivery Type: from Request.Delivery Type…
- CASH → C
- PHYS → P
E.g.: “JESXFC”</td></tr>
<tr><td>Short Name</td><td colspan="2">Concatenation of the following attributes/values:
• Issuer: “NA/”
• Instrument Type: “Fwd” (fixed value)
• Underlying Asset Type: “Sgle Stk” (fixed value)
• Return or Payout Trigger: from Request.ReturnorPayoutTrigger…
- Forward price of underlying instrument → “Fwd Pr”
- Spreadbets → “Spread”
E.g.: “NA/Fwd Sgle Stk Fwd Pr”
Note: The Short Name is based on the OTC ISIN that excludes the following fields:
• Notional Currency
• Expiry Date</td></tr>
<tr><td>CFI Delivery Type</td><td colspan="2">Derived from the input Delivery Type…
• CASH → “Cash”
• PHYS → “Physical”</td></tr>
<tr><td rowspan="6">GUI Details</td><td colspan="3">The following section provides display information for any attributes (and values) that are not included in the related OTC ISIN definition.</td></tr>
<tr><td>Attribute</td><td>Display Name</td><td>Tool Tip (and • value elaboration)</td></tr>
<tr><td>Underlier ID</td><td>Underlier ID</td><td>An identifier that can be used to determine the asset(s), index (indices) or benchmark underlying a contract or, in the case of a foreign exchange derivative, identification of the currency pair or index.</td></tr>
<tr><td>Underlier ID Source</td><td>Underlier ID Source</td><td>The origin, or publisher, of the associated underlier ID.</td></tr>
<tr><td>UPI</td><td>Identification</td><td>Unique Product Identifier (ISO 4914).</td></tr>
<tr><td>CFI Delivery Type</td><td>CFI Delivery Type</td><td>The Delivery Type as defined by CFI code: ISO 10962
• As defined by CFI Code: ISO 10962</td></tr>
<tr><td colspan="4">Additional Information</td></tr>
<tr><td>Reference</td><td colspan="3">References to external documents can be found on the DSB website at this address [https://www.anna-dsb.com/upi-external-reference-documents/].</td></tr>
<tr><td>Comments</td><td colspan="3">• Currently the system does not hold reference data to support the validation of the LEI or ISIN. This means that it is not possible to validate the existence or classification of the Underlier ID. In addition, this means that human-readable alias is not currently supported for inclusion in the Short Name attribute.
• Short Name abbreviation for Underlying Asset Type (Single Stock) for Equity products is “Sgle Stk" while for Portfolio swaps single name product, abbreviations used is “SStk”.</td></tr>
</table>

ISO 4914 Equivalence	**ISO 4914**		**Request Attribute**	**Record Attribute**
	Asset Class	M	Asset Class	Asset Class
	Instrument type	M	Instrument Type	Instrument Type
	Delivery type	M	Delivery Type	Delivery Type
				CFI Delivery Type
	Return, pricing method or payout trigger	M	Return or Payout Trigger	Return or Payout Trigger
	Underlier ID	C	Underlier ID	Underlying Instrument ISIN
	Underlier ID source	C	Underlier ID Source	Not Required
	Underlier type	M	Not Required	Underlying Asset Type
	Underlying contract tenor period*	C	Not Required	
	Underlying contract tenor period multiplier*	C	Not Required	

*Underlying Contract Tenor Period / Multiplier applies only to a derivative contract underlying another derivative. For this product, the underlying is a single stock and so these attributes are not required.