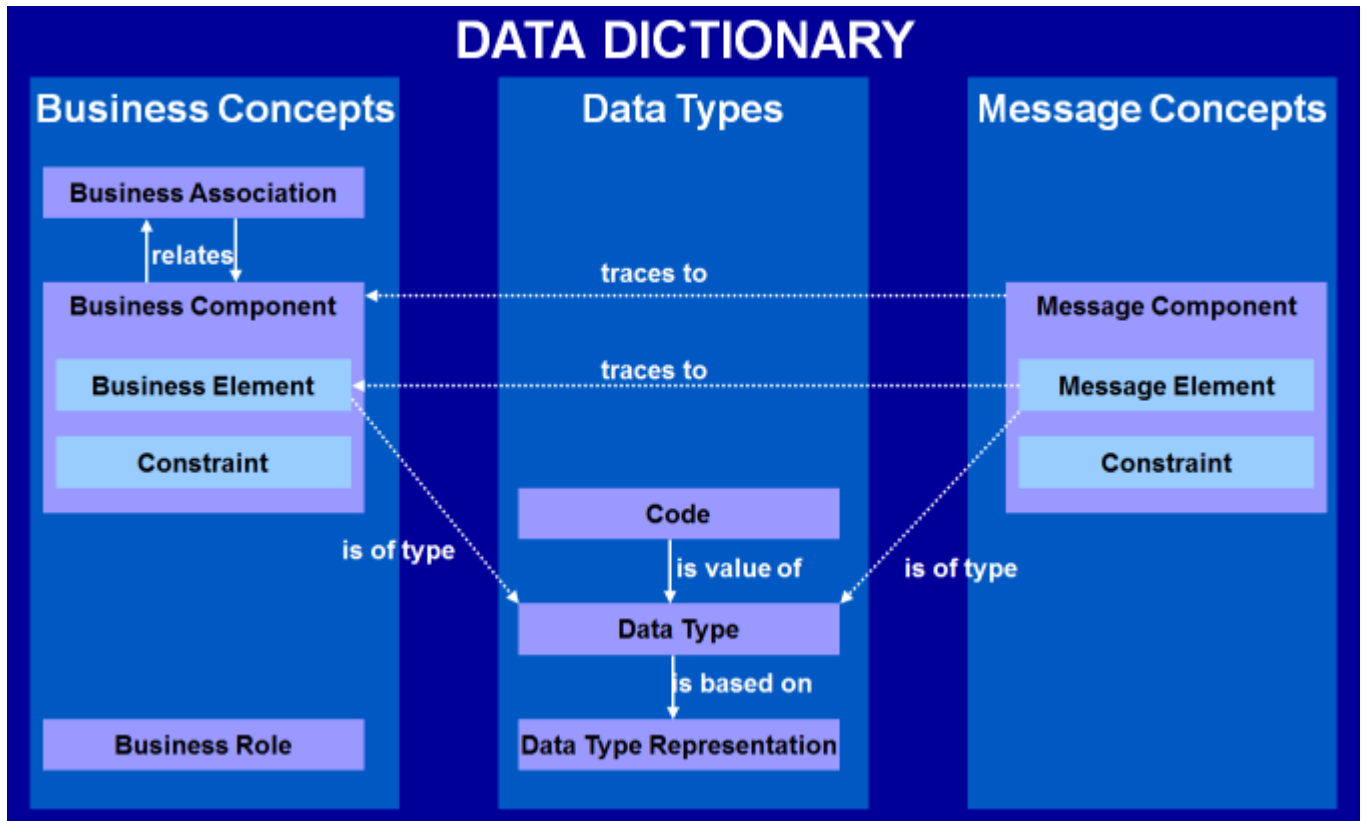


Understanding the Data Dictionary

This diagram shows the conceptual structure of the Dictionary. It shows all types of Dictionary items and the relationships between them.



The items in the Dictionary can be classified in three categories: Business Concepts, Data Types and Message Concepts.

Business Concepts are Dictionary items with a business semantic meaning.

The following items are part of this category:

- Business Associations,
- Business Components,
- Constraints,
- Business Elements,
- Business Roles.

Data Types are Dictionary items that unambiguously specifies the set of valid values of a Business Element or of a Message Element.

Message Concepts are Dictionary items used in Message Definitions.

The following items are part of this category:

- Message Components,
- Constraints,
- Message Elements.

Additional information on items displayed on Dictionary screens

The following information may be provided in the detailed description of the Dictionary items:

1 Business Component

Representation of a (part of a) key business notion, characterised by specific Business Elements. Each Business Component may have one or more Associations with other Business Components. A Business Component is uniquely identified in the Dictionary.

Examples: *TradeTransaction, Account, CashEntry*

2 Business Element

A business characteristic of a Business Component. A Business Element is uniquely identified in its Business Component, its meaning can only be described unambiguously in combination with its Business Component.

When a business characteristic of a Business Component may be repeated in an instance of that Component, a multiplicity information is added behind the Business Element name between square brackets; e.g. "[2..n]" - meaning that the characteristic can be repeated two to an indefinite number of times.

Examples: *DealPrice (in TradeTransaction), SettledQuantity (in SecuritiesTransfer), Amount (in CashEntry).*

3 Business Association

A semantic relation between two Business Components. The meaning of a Business Association is always defined in combination with these two Business Components. A Business Association is therefore uniquely identified in the scope of two Business Components.

Business Associations have two Business Associations Ends. These endpoints connect the Business Association to its Business Components.

4 Business Role

A functional role played by a business actor in a particular Business Process or Business Transaction. A Business Role is uniquely identified in the Dictionary.

Examples: *FinancialInstitution, CSD*

5 Data Type and Data Type Representations

A Data Type is the unambiguous specification of the set of valid values of a Business Element or of a Message Element.

The set of valid values may be defined via a format specification or via an exhaustive enumeration of all possible values. A Data Type is uniquely identified in the Dictionary.

Each Data Type belongs to a specific category of Data Types called a **Data Type Representation**. Each Data Type Representation is characterized by a set of technical information required for implementation and processing.

The user-defined Data Types are categorized in a limited number of datatype representations, such

as *Amount*, *IdentifierSet*, *Quantity*, *CodeSet*, *Date*, *Time*, *Text*, etc. The full list of DataType representations is defined in the metamodel.

Examples of Data Types (Representation Types): *PercentageRate (Rate)*, *BalanceTypeCode (Code)*, *PaymentDirectionIndicator (Indicator)*

6 Message Component

A reusable Dictionary Item that is a building block for assembling Message Definitions. It is normally linked to a Business Component and characterised by specific Message Elements. A Message Component is uniquely identified in the Dictionary.

A Message Component may be qualified as a "**Choice**" component meaning that only one of the elements composing this Message Component may be selected in an XML instance of a message containing that Choice Message Component.

7 Message Element

A characteristic of a Message Component. A Message Element is uniquely identified in its Message / Choice Component.

When a Message Element may be repeated in an instance of a Message Component, a multiplicity information is added behind the Message Element name between square brackets; e.g. "[0..n]" - meaning that the Message Element may be repeated 0, 1 or an indefinite number of times.

8 Constraint

A constraint attached to a Business or Message Component and defining specific conditions applicable to that Component or to its associated Business Components. A Constraint is uniquely identified in the scope of a Business or Message Component.

Examples: *ExchangeConversionRule (applied on the Business Component CurrencyExchange)*, *AmountsCurrencyRule (applied on the Message Component SubscriptionCashFlow2)*.

Some typical constraints that may appear regularly in the Dictionary are:

Format or XML Facet: This constraint assigned to a Data Type provides formatting constraints on the value that may be assigned to an element typed by this Data Type. Typical constraints that may be assigned are for instance:

Total number of digits;

A pattern with which the value must comply (e.g. 3 alphanumeric characters);

Maximum value