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Informationsteknologi – Standard for Core Business Vocabulary

Information technology – Core Business Vocabulary Standard

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This document was prepared by the GS1 and was adopted, under the PAS procedure, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

This second edition cancels and replaces the first edition (ISO/IEC 19988:2015), which has been technically revised.

The main changes compared to the previous edition are as follows:

— A new standard vocabulary for EPCIS error declaration reason identifiers is added.

— The URI structure for EPCIS event identifiers is specified.

— New business step values dispensing and voidShipping added.

— New disposition values dispensed and partially_dispensed added.

— A new section for trade item master data attributes is added, and the section on location and party master data attributes is expanded.

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Document Summary

Document Item	Current Value
Document Name	Core Business Vocabulary Standard
Document Date	Sep 2016
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Document Issue	
Document Status	Ratified
Document Description	specifies the structure of vocabularies and specific values for the vocabulary elements to be utilised in conjunction with the GS1 EPCIS standard

Log of Changes

Release	Date of Change	Changed By	Summary of Change
1.0	Oct 2010		Initial release
1.1	March 2014		A new standard vocabulary for EPCIS source/destination type is added. Templates for new user vocabularies for EPCIS source/destination identifier, EPCIS transformation identifier, and object classes are added. New business step, disposition, and business transaction type values are added. The definitions of existing values are also clarified. Disposition values non_sellable_expired, non_sellable_damaged, non_sellable_disposed, non_sellable_no_pedigree_match, and non_sellable_recalled defined in CBV 1.0 are deprecated in favour of new disposition values expired, damaged, disposed, no_pedigree_match, and recalled introduced in CBV 1.1. RFC5870-compliant geocoordinate URIs are now permitted as location identifiers. The introductory material is revised to align with the GS1 System Architecture.
1.2	Sep 2016		CBV 1.2 is fully backward compatible with CBV 1.1 and 1.0. CBV 1.2 includes these new or enhanced features: A new standard vocabulary for EPCIS error declaration reason identifiers is added. The URI structure for EPCIS event identifiers is specified. New business step values dispensing and voidShipping added. New disposition values dispensed and partially_dispensed added. A new section for trade item master data attributes is added, and the section on location and party master data attributes is expanded.

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1 Introduction – Core Business Vocabulary

This GS1 standard defines the Core Business Vocabulary (CBV). The goal of this standard is to specify various vocabulary elements and their values for use in conjunction with the EPCIS standard [EPCIS1.2], which defines mechanisms to exchange information both within and across organisation boundaries. The vocabulary identifiers and definitions in this standard will ensure that all parties who exchange EPCIS data using the Core Business Vocabulary will have a common understanding of the semantic meaning of that data.

This standard is intended to provide a basic capability that meets the above goal. In particular, this standard is designed to define vocabularies that are *core* to the EPCIS abstract data model and are applicable to a broad set of business scenarios common to many industries that have a desire or requirement to share data. This standard intends to provide a useful set of values and definitions that can be consistently understood by each party in the supply chain.

Additional end user requirements may be addressed by augmenting the vocabulary elements herein with additional vocabulary elements defined for a particular industry or a set of users or a single user. Additional values for the standard vocabulary types defined in this standard may be included in follow-on versions of this standard.

This standard includes identifier syntax and specific vocabulary element values with their definitions for these *Standard Vocabularies*:

- Business step identifiers
- Disposition identifiers
- Business transaction types
- Source/Destination types
- Error reason identifiers

This standard provides identifier syntax options for these *User Vocabularies:*

- Objects
- Locations
- Business transactions
- Source/Destination identifiers
- Transformation identifiers
- Event identifiers

This standard provides *Master Data Attributes and Values* for describing Physical Locations including:

- Site Location
- Sub-Site Type
- Sub-Site Attributes
- Sub-Site Detail

Additional detailed master data regarding locations (addresses, etc.) are not defined in this standard.

2 Relationship to the GS1 System Architecture

The Core Business Vocabulary is a companion standard to the EPCIS standard. EPCIS is the standard that defines the technical interfaces for capturing and sharing event data. EPCIS defines a framework data model for event data. The Core Business Vocabulary is a GS1 *data standard* that supplements that framework by defining specific data values that may populate the EPCIS data model. As such, the CBV exists in the “Share” group of GS1 standards.

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3 Relationship to EPCIS

This section specifies how the Core Business Vocabulary standard relates to the EPC Information Services (EPCIS) standard.

3.1 EPCIS event structure

The EPCIS 1.2 standard [EPCIS1.2] specifies the data elements in an EPCIS event. The following lists these data elements, and indicates where the Core Business Vocabulary provides identifiers that may be used as values for those data elements.

- **The "what" dimension**: The *what* dimension for most event types contains one or more unique identifiers for physical or digital objects or classes of physical or digital objects. Identifiers for physical or digital objects in the Core Business Vocabulary are specified in *Section 8.2 (instance-level) and Section 8.3 (class-level)*. In the case of an EPCIS TransformationEvent, an optional TransformationID may be used to link together multiple events that describe the same transformation. The Core Business Vocabulary includes TransformationIDs in *Section 8.7.*
- **The "when" dimension**: The moment in time at which an EPCIS event occurred. Event time is fully specified in the EPCIS standard.
- **The "where" dimension**: The "where" dimension consists of two identifiers that describe different aspects of where an event occurred:
  - **Read Point**: The location where the EPCIS event took place. In the case of an EPCIS event arising from reading a barcode or RFID tag, the Read Point is often the location where the barcode or RFID tag was read. Identifiers for read points in the Core Business Vocabulary are specified in *Section 8.3.*

    Example: A reader is placed at dock door #3 at the London Distribution Centre (DC). Product passed through the dock door. Read point = <The identifier that stands for London DC Dock Door #3>
  - **Business Location**: The location where the subject of the event is assumed to be following an EPCIS event, until a new event takes place that indicates otherwise. Identifiers for business locations in the Core Business Vocabulary are specified in *Section 8.3*.

    Example: A product is read through the sales floor transition door at store #123. The product is now sitting on the sales floor. Business location = <The identifier that stands for store #123 Sales Floor>
- **The "why" dimension**: The "why" dimension consists of two identifiers and a list of business transaction identifiers, which collectively provide the business context or "why" the event occurred:
  - **Business Step**: Denotes a specific activity within a business process. The business step field of an event specifies what business process step was taking place that caused the event to be captured. Identifiers for business steps in the Core Business Vocabulary are specified in *Section 7.1*.

    Example: an EPCIS event is generated as a product departs the location identified by the Read Point. Business Step = <The identifier that denotes "shipping">
  - **Disposition**: Denotes the business state of an object. The disposition field of an event specifies the business condition of the subject of the event (the things specified in the "what" dimension), subsequent to the event. The disposition is assumed to hold true until another event indicates a change of disposition. Identifiers for dispositions in the Core Business Vocabulary are specified in *Section 7.2.*

    Example: an EPCIS event is generated and afterward the products can be sold as-is and customers can access product for purchase. Disposition = <The identifier that denotes "sellable and accessible">
  - **Business Transaction References**: An EPCIS event may refer to one or more business transaction documents. Each such reference consists of two identifiers:

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