

Organisation Post Fulfilment

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Document Version History

Version	Status	BDS Approval Date	TDS Issue Date	Modified by	Description
1.0	Approved: Recommended	23/07/2013	03/12/2013	ISB	New TDS
2.0	Approved: Recommended	18/11/2014	08/12/2014	ISB	Amend element name Result_Value_Type to QE_Outcome_Value_Type
3.0	Approved: Recommended	22/03/2016	26/04/2016	ISB	General Data Model Maintenance – reduce length of elements with names greater than 30 characters as per the standards

Contents

1	<i>Data Standard</i>	3
1.1	Introduction	3
1.1.1	Application	3
1.1.2	Compatibility with non-ISB standards	3
2	<i>XSD</i>	4
3	<i>XSD Normalisation</i>	5
3.1	Introduction	5
3.2	Details of Normalisation specific to Organisation Post Fulfilment	5
4	<i>XSD Optimisation</i>	7
4.1	Introduction	7
4.2	Details of Optimisation specific to Organisation Post Fulfilment	7
5	<i>Changes from previous version</i>	13
6	<i>References</i>	13
7	<i>Notes</i>	13
8	<i>Copyright Notice</i>	14

1 DATA STANDARD

1.1 Introduction

1.1.1 Application

This Technical Data Standard (TDS) binds the Organisation Post Fulfilment Business Data Standard (BDS) to an XML Schema (XSD) representation.

This standard can be used to store or exchange data about PARTY that fulfils an ORGANISATION POST to carry out specific duties or tasks. Details of the agreement between the PARTY that fills the post, such as a Teacher, and the EMPLOYER, such as a school, are contained within this standard. This standard covers the data that would be held in a contract of employment.

1.1.2 Compatibility with non-ISB standards

There are no known compatibility issues related to this standard.

2 XSD



3 XSD NORMALISATION

3.1 Introduction

This section defines normalisation that has been applied. The Business Data Standard data model may contain multiple entities that inherit primary keys from a parent entity. In this situation the same primary keys will occur in multiple entities. If this pattern was translated directly to the xsd then the same primary key element(s) would be repeated within the xsd. When parsing the xml, if the element was referenced without xpath then the particular instance of the repeated primary key element could not be determined.

If all instances of the repeated primary key element(s) contained the same value then there would not be an issue. However, if there were different values in the repeated primary key element(s) then the value to be returned would be indeterminate. To prevent this situation the conversion from the Entity Relationship Diagram (ERD) model to the xsd involved normalisation to remove the repetition. This results in nodes being created in the xsd to define primary keys once and sub-nodes created that inherit those keys. This section will identify any normalisation that has taken place and how it has been implemented in the schema.

3.2 Details of Normalisation specific to Organisation Post Fulfilment

The Organisation Post Fulfilment model consists of a parent entity Organisation Post Fulfilment and six child associate entities

- Org Post Fulfilment Party Name
- Org Post Qualification Asserted
- Organisation Post QE Outcome
- Org Post Fulfilment Evidence
- Org Post Fulfilment Contact
- Org Post Fulfilment Benefit

All the above entities have compound keys.

The associate entities all inherit from the Organisation Post Fulfilment four primary keys.

The common primary keys are held under the OrganisationPostFulfilment node and OrgPostFulfilment_CN node. The primary keys that are normalised are:

- Party_Id_Employer
- Party_Id_Org_Post_Fullfiller
- Post_Name
- Org_Post_Effective_Date

4 XSD OPTIMISATION

4.1 Introduction

This section defines optimisation that has been applied to the xsd. The Business Data Standard data model may contain compound keys made up from a number of attributes. The sequence of the attributes in the Business Data Standard data model is defined to identify any opportunities for optimisation in encodings that can accommodate that capability.

An example is where the primary key contains the values of Party_Id and then Event_Id. This implies that a single Party_Id may have many Event_Ids. Encodings that can accommodate optimisation can define the Party_Id once and then under that have many Event_Ids. For xml encoding, a single Party_Id element node can be defined with an unbounded list under that node for the Event_Ids. This reduces the amount of data redundancy.

4.2 Details of Optimisation specific to Organisation Post Fulfilment

The Organisation Post Fulfilment structure is optimised as follows:

- Under the OrganisationPostFulfilment node there is a primary key set (1) containing:
 - Party_Id_Employer
- Under the above primary key set (1) there are multiple instances of OrgPostFulfilment_CN node that holds the further primary key set (2) containing:
 - Party_Id_Org_Post_Fullfiller
 - Post_Name
 - Org_Post_Effective_Date
- Therefore
 - for one instance of primary key set (1) there are multiple instances of primary key set (2)

The Org Post Fulfilment Party Name is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrgPostFulfilmentPartyName node that holds the further primary key set (3) containing:
 - Party_Id
 - Party_Name_Description
 - Party_Name_Effective_Date
 - Party_Name_Use_Type
- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (3)

The Org Post Qualification Asserted is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrgPostQualificationAsserted node that holds the further primary key set (4) containing:
 - Org_Post_Qualification_Asserted
- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (4)

The Organisation Post QE Outcome is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrganisationPostQEOutcome node that holds the further primary key set (5) containing:
 - Party_Id_Originator
 - Learner_Party_Id
 - Awarding_Organisation_Party_Id
 - AO_Qualification_Element_Id
 - Qualification_Element_Type
 - QEA_Effective_Start_Date_Time
 - QE_Outcome_Type
 - QE_Outcome_Value_Type
- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (5)

The Org Post Fulfilment Evidence is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrgPostFulfilmentEvidence node that holds the further primary key set (6) containing:
 - Party_Id_Owner
 - Information_Object_Type
 - IO_Date
 - IO_Original_Version_Flag

- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (6)

The Org Post Fulfilment Contact is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrgPostFulfilmentContact node that holds the further primary key set (7) containing:
 - Party_Id_Contact
 - Locator_Id_Contact
 - Party_Contact_Use_Type
- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (7)

The Org Post Fulfilment Benefit is optimised as follows:

- Under the above primary key set (2) there are multiple instances of OrgPostFulfilmentBenefit node that holds the further primary key set (8) containing:
 - Organisation_Post_Benefit_Type
- Therefore
 - for one instance of primary key set (2) there are multiple instances of primary key set (8)

For each of the child entities in the Organisation Post Fulfilment when creating data for the primary keys there are two options available that both satisfy the xsd. The following will consider the Org Post Fulfilment Party Name but the same will apply to all child entities:

- Option 1 – One Party_Id_Employer/Party_Id_Org_Post_Fullfiller/Post_Name/Org_Post_Effective_Date with many Party_Id/Party_Name_Description/Party_Name_Effective_Date
- Option 2 – One Party_Id_Employer/Party_Id_Org_Post_Fullfiller/Post_Name/Org_Post_Effective_Date with one instance of Party_Id/Party_Name_Description/Party_Name_Effective_Date

Option 1 utilises the optimisation as there will be one Organisation Post Fulfilment with all its Org Post Fulfilment Party Name instances

Option 2 does not use the optimisation and repeats the Organisation Post Fulfilment against a single Org Post Fulfilment Party Name instance.

Providing Option 1 is coded for in the Application then either Option 1 or 2 Option can be supported. However, this is not true if Option 2 only is coded for as the program will not hold the Party_Id_Employer/Party_Id_Org_Post_Fullfiller/Post_Name/Org_Post_Effective_Date set in memory for use against each of the Org Post Fulfilment Party Name instances.

The recommendation is always to code for the optimisation method Option 1.

5 CHANGES FROM PREVIOUS VERSION

Rename element Org_Post_Fulfilment_Status_Type to Org_Post_Fulfil_Status_Type.

6 REFERENCES

The following references are specific to this Technical Data Standard:

- ESCS ISB Consolidated XML (XSD) Schema, version 6.0 - Organisation Post Fulfilment Content Model Version 1.7
- ESCS ISB Business Data Architecture Entity Relationship Diagram, version 12.1
- ESCS ISB, Business Data Standard, Organisation Post Fulfilment

The following references apply to all Technical Data Standards:

- ESCS ISB Standards Overview and Context
- ESCS ISB “System“ Enterprise Architecture - Business Data Architecture
- ESCS ISB Business Data Architecture Data Types
- ESCS ISB BDA Data Architecture Modelling Standards
- ESCS ISB Management Process

7 NOTES

None.

8 COPYRIGHT NOTICE

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