

Juvenile Migrant Exchange

Flow Configuration Document

Version 1.0
July 14, 2010

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1. Introduction

1.1. Background

The Exchange Network (EN) provides tools and approaches for data to be shared efficiently and securely over the Internet, providing real-time access to higher-quality data while saving time and resources for partners. The purpose of the Juvenile Migrant Data Exchange Project (JMX) is to use the Exchange Network to collect and integrate Washington State's juvenile migrant salmon information.

1.2. Document Purpose

This Flow Configuration Document (FCD) is intended to define the supported data services, the approaches and processes that are used to exchange information over the Exchange Network via web services technology. The purpose of this FCD is to describe the operation of the Juvenile Migrant Exchange using XML-based data submissions through Node-to-Node or Client-to-Node transfers.

1.3. How to use this FCD

This FCD provides guidance to implement an XML/web-service based model for data submission. For the JMX project, there are two types of submissions, Update-Insert and Delete. This FCD expands upon the usage of the JMX Schema and introduces the implementation of the Document Header. This document includes the following main sections:

1.3.1. Implementing the Header Document

This section describes how the JMX Network Exchange makes use of the Exchange Network Header Document to describe the payload content of a Network message. This submission structure is used for both Node-to-Node and Client-to-Node submissions.

1.3.2. Data Processing

This section describes the data processing rules in effect in the JMX System.

1.3.3. Submission Processing and Feedback

This section describes the processing steps and status changes that occur as your submission flows through the JMX System.

2. Component Alignment and Change History

2.1. Flow Component Version History

Component	Version	Date	Changed By	Description of Change
FCD	1.0			Original Release
Schema	1.0			Original Release
DET	1.0			Original Release

2.2. Flow Component Versions Currently Supported

Component	Version(s) Supported	Explanation (optional)
FCD	1.0	
Schema	1.0	
DET	1.0	

2.3. Business Rule Change History

Business Rule Change	Change Date	Explanation (optional)

3. Implementing the Header Document

3.1. Overview

The Exchange Network Header Document provides additional information about the contents of a message payload. It is developed to further automate the data exchange process so that data can be more readily identified during transport and managed at its processing destination. The Header Document can describe what a data payload contains, who submitted it, when it was submitted, as well as instructions on processing the payload contents, such as whether the contents are inserts and updates or deletions. Essentially, the Header Document is an XML wrapper, placed around an XML payload before transmission.

3.2. Header Document Structure

Any network exchange for WQX must use the Header 2.0 specification document structure in order to meet JMX processing requirements.

3.3. Add Header 2.0 info here

4. Data Processing

The first element value in each of the XML schemas for JMX is the OrganizationIdentifier. This is a unique identifier for an organization and must be assigned by the JMX steward (?) before that organization can submit data to the JMX system. An organization cannot be created or deleted via a data submission.

Before processing any submission file, the JMX system will first validate that the Organization Identifier in the file is valid and that the User ID used to authenticate and submit the file to JMX has been authorized to modify data for that organization.

Once the user and organization have been validated, the JMX system will proceed to process the submission file. The following sections explain the processing that occurs for each type of payload: "Update-Insert" and "Delete".

4.1. Update-Insert

Add Update-Insert description here

4.1.1. Data Rules

The following is a summary of the data validation rules enforced on the XML submission document.

4.1.1.1. Source Map Scale Numeric must be reported when Horizontal Collection Method Type is "*Interpolation-Map*"

4.1.1.2. Cone Rotation Rate must be reported when Trap Type contains "*Screw*"

4.1.1.3. CollectionEvent.MeasurementUnitLUT_Id must be reported when Cone Rotation Rate is populated

4.1.1.4. CatchEvent.Tag_Code must be reported when CatchEvent Tag_Ind is "*Yes*"

4.1.1.5. Individual.WeightMeasurementTypeLUT_Id must be reported when Individual.WeightMeas is populated.

4.1.1.6. Individual.LengthMeasurementTypeLUT must be reported when Individual.LengthMeas is populated.

4.1.1.7. Individual.FishMeasurementTypeLUT must be reported when Individual.LengthMeas is populated.

4.1.1.8. ReleaseEvent.Tag_Code must be reported when ReleaseEvent Tag_Ind is "*Yes*"

4.1.1.9. Other conditional rules added here

4.1.2. Update-Insert Schema placed here

4.2. Delete

Add Delete description here

4.2.1. Delete Rules

The following procedure defines the delete process:

4.2.2. Delete Schema placed here

5. Submission Processing and Feedback

Before a JMX submission is made, a Node User must register with Network Authentication Authorization (NAAS) and obtain a user account. Furthermore, a NAAS policy is established that allows the account to invoke specific methods on the JMX Node for the JMX exchange. Submission of Exchange Network Documents to the JMX System via the JMX Node follows these processing steps:

5.1. Insert submission processing steps here

6. Query Processing and Feedback

Insert query info here

7. Web Service Methods at JMX

Insert info here

7.1. Authenticate
describe

7.2. Submit
describe

7.3. GetStatus
describe

7.4. Download
describe

7.5. Query
describe

7.6. Solicit
describe

8. Data Services (Query/Solicit)

describe