# Table of Contents

Chapter 1: Introduction ................................................................................................................................. 4  
  Introduction............................................................................................................................................... 4  
  Purpose...................................................................................................................................................... 4  
  Scope......................................................................................................................................................... 4  
  Before Starting .......................................................................................................................................... 4  

Chapter 2: Implementation Options - Overview ........................................................................................... 6  
  Understanding the MISMO v3.4 Reference Model Build 324 ..................................................................... 6  
    The MISMO v3.4 Reference Model ..................................................................................................... 6  
    Navigating the MISMO v3.4 Reference Model.................................................................................... 7  
    Contents of the MISMO v3.4 Logical Data Dictionary (LDD)............................................................ 7  
  Understanding Fannie Mae’s DU Spec ..................................................................................................... 7  
    Navigating the Fannie Mae DU Spec ................................................................................................... 8  
    The DU Map Tab .................................................................................................................................. 8  
    Understanding Conditionality ............................................................................................................. 10  
  Government Loans .................................................................................................................................. 11  
  FHA Loans .............................................................................................................................................. 11  
  VA Loans ................................................................................................................................................ 11  
  Credit Request ......................................................................................................................................... 11  
  EarlyCheck .............................................................................................................................................. 11  

Chapter 3: Planning For Implementation .................................................................................................... 12  
  Changing from the 1003 v3.2 flat file to an XML file ............................................................................ 12  
    The 1003 v3.2 Flat File ....................................................................................................................... 12  
    The Structure of the Loan Application Submission File..................................................................... 12  
  Upgrading from the MISMO DTD XML file to a MISMO Schema Based XML file ........................... 13  
    Moving from a 1003 flat file or a DTD file to an XML schema-based file ........................................ 13  
  Creating XML Schema based submission file ........................................................................................ 13  

Chapter 4: Understanding the DU Spec from a Business Perspective ........................................................ 14  
  What Information is in the redesigned Form 1003 vs. the DU Specification? ....................................... 14  
  Describing the Information contained in the DU Specification .............................................................. 14  
    XML Content Section ......................................................................................................................... 14  
    Form Header Section .......................................................................................................................... 14
## Fannie Mae Implementation Guide Revision History

<table>
<thead>
<tr>
<th>Document Date</th>
<th>Version No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Chapter 1: Introduction

This chapter includes the following topics:

- Introduction
- Purpose of document
- Document organization
- Before You Start

Introduction

Fannie Mae and Freddie Mac (the GSEs), in an effort to promote further alignment in the mortgage industry, have developed the Uniform Loan Application Dataset (ULAD), a common dataset, in support of the redesigned Uniform Residential Loan Application (URLA). The ULAD Mapping Document maps each Form 1003 field to a corresponding Mortgage Industry Standards Maintenance Organization (MISMO®) v3.4 data point. MISMO, a subsidiary of the Mortgage Bankers Associates (MBA), has developed a data standard for the exchange of mortgage related data aimed at reducing costs and increasing transparency. Leveraging the MISMO standard, Fannie Mae has developed and published the updated data requirements specification for Desktop Underwriter® (DU®), referred to as the DU Specification (DU Spec), which includes the ULAD and additional information to support data collection for Conventional, FHA, and VA loans.

Purpose

The DU Spec is intended to serve as the requirements for business and technical organizations to create the new DU data loan submission files based on MISMO v3.4 Reference Model. The DU Spec provides an overview of the data architecture, including reference information about the allowable structure, sequence, values, conditionality and format of the DU data loan submission XML files. The DU Spec also describes how the data from the Residential Loan Data 1003 v3.2 flat file and the MISMO v2.3.1 XML file compares to the data mapped to the MISMO v3.4 Reference Model. This document, the Desktop Underwriter Specification MISMO V3.4 Implementation Guide, provides additional supporting information for business and technical organizations as they implement the new DU Spec.

Scope

The following is a summary of the document chapters and purpose:

- Chapter 2 - provides an overview of the MISMO v3.4 Reference Model, the associated schemas, and the corresponding MISMO Logical Data Dictionary (LDD). This chapter also provides an outline of the DU Spec, with important information about the data mapping, conditionality, conditionality statements, cardinality, and implementation notes.
- Chapter 3 - provides helpful information to support the planning and implementation of the data requirements outlined in the DU Spec. This chapter describes the concepts of transitioning from the 1003 v3.2 flat file or MISMO v2.3.1 DTD to the MISMO v3.4 XML file. In addition, this chapter also includes sample steps to create an XML schema-based Loan Application Submission file.
- Chapter 4 - provides information to help clarify the different purposes of the ULAD Mapping Document and the DU Spec (from a business point of view).
- Chapter 5 - provides FAQs for creating and testing Loan Application Submission files (XML).
- Chapter 6 - includes a set of diagrams that show the MISMO v3.4 data structures that support each section of the Form 1003.
- Appendices - contains a Glossary.

Before Starting

This section aims to provide a basic understanding of how to read the DU Spec and experienced developers may want to skip to the next chapter. To upgrade your business solution to work with MISMO v3.4, you
will need to understand the MISMO Reference Model and its supporting artifacts. Refer to the section Understanding the MISMO v3.4 Reference Model Build 324 for more information.

Comparing the Form 1003 to the MISMO Data Model

In certain scenarios it may be helpful to create a side by side comparison of the Form 1003 and the corresponding MISMO model diagrams as depicted in Chapter 6. This side by side view will help to better understand the hierarchical manner of the data relationships in MISMO to the fields in the Form 1003 sections.

- Specific business sections on the form will map to specific data structures in the model (i.e., Assets, Liabilities, Acknowledgements, Lender Information, etc.)
- Consult these diagrams that describe the business functions based on the DU Spec requirements for underwriting a loan (Chapter 6) to better understand the data hierarchy involved per business function.

Identify Data Issues

1) After constructing the Loan Application Submission file, make sure to validate the file:
   a. Most XML editors will allow the user to save a file even if it does not pass validation. It is a best practice to validate the Loan Application Submission file prior to submission to Fannie Mae.
   b. The validation should be against the associated schemas: the MISMO v3.4 Build 324 Schema (Schema) and the DU Wrapper Schema that Fannie Mae will provide. Please refer to http://www.mismo.org/standards-and-resources/residential-specifications/mismo-version-34 and https://www.fanniemae.com/content/tool/ulad-du-schema-extensions.zip respectively
   c. XML errors should be resolved prior to submitting the Loan Application Submission file to DU.

2) Helpful hints to resolve issues or errors in the creation of the Loan Application Submission file:
   a. When trying to find and compare data, the DU Spec follows the order of the Form 1003 layout; whereas the Loan Application Submission file follows the MISMO v3.4 Build 324 Schema hierarchy which is mostly in alphabetical order. The DU Spec can be reorganized to match the schema hierarchy by sorting on the MISMO v3.4 XPATH column for alphabetical order.
   b. The Containers in a Parent Container may not always be in alphabetical order. For example, the MISMO Containers under PARTY are not aligned in alphabetical order; however, it should be taken into consideration when building the Loan Application Submission file and validating it against the schema. The validation may generate an error if you are strictly following the alphabetical order. Refer to example 1 below where we demonstrate the Elements (Containers) are not in alphabetical order as in the XML:

   ![Example 1 Order of Containers in MISMO Schema](image)
Chapter 2: Implementation Options - Overview

This chapter includes the following topics:

- Understanding the MISMO v3.4 Reference Model Build 324
- Understanding Fannie Mae’s DU Spec
- Government Loans
- Credit Request
- EarlyCheck™

Understanding the MISMO v3.4 Reference Model Build 324

The DU Spec is based on the MISMO v3.4 Reference Model Build 324. In order to create a Loan Application Submission file that works with MISMO v3.4 we recommended you have a full understanding of the MISMO v3.4 Reference Model and its supporting artifacts. Getting familiar with MISMO key terms will help in navigating through MISMO v3.4 and its supporting documents. Refer to the Glossary section of this document for more information on key MISMO terms.

The MISMO v3.4 Reference Model

The MISMO v3.4 Reference Model is a framework representing data and the collection of data grouped under a consistent concept. The model includes over 10,000 data points and enumerations with definitions and allowable values. The schema is a representation of this data and relationships and must be used when implementing the Loan Application Submission file.

MISMO v3.4 Reference Model is organized in a hierarchical structure with containers and data points that originate from a single ancestor, the MESSAGE container. The following (Figure. 1) is a sample representation of the schema and the hierarchical relationships between containers.

![Hierarchical relation of containers in Deal Sets structure](image)

Figure. 1 Hierarchical relation of containers in Deal Sets structure

The MISMO v3.4 Reference Model includes several supporting documents for the data model and are available on the MISMO.org website.
Navigating the MISMO v3.4 Reference Model
The use of an XML editor, which offers a graphical user interface (GUI) for visualizing XML documents, may be used to display the hierarchical order of the model starting at the root container and following downward by expanding with child containers. See Figure. 2.

Contents of the MISMO v3.4 Logical Data Dictionary (LDD)
The LDD is a Microsoft Office Excel® workbook containing information about all of the data components of the MISMO v3.4 Reference Model. The file includes a set of different tabs organized in alphabetical order, as follows:

- LDD Report_V3.4.0.0_B324 provides an inventory of the version 3.4 model content, including:
  - Data point names and definitions
  - Containers in which the data points reside
  - Attributes
  - ARC Roles
  - Enumerations

Understanding Fannie Mae’s DU Spec
The implementation of the DU Spec to create a Loan Application Submission file for DU will require familiarity with the MISMO v3.4 XML Schema and its corresponding LDD. The DU Spec is based on the structures and definitions in the schema and LDD documents and provides specific information on how to create the XML file for DU.
Navigating the Fannie Mae DU Spec
The DU Spec is organized in named tabs in a Microsoft Office Excel workbook. The following is a list of the tabs and a brief description, where necessary, in the DU spec:

- **Read Me**
- **Tab Description**
- **Column Description**
- **DU Map Updates** – Highlights changes since the previous published version.
- **DU Map** – contains Data Points with Definitions, Parent Containers, XPATHs, Enumerations, Attributes, etc. Note: All Data Points have a Unique Identifier that will help the reader with mapping the spec to the Form 1003, when necessary.
- **DU Enumerations** – Includes the allowable values that are supported by DU and the enumeration definition provided by MISMO. Note: All DU Spec enumerations are linked to the Map tab through the Unique Identifier.
- **Cardinality** – Defines the minimum and maximum number of times that containers can repeat in DU.
- **ArcRoles** – List of supported Xlinks (ArcRoles) required by DU to relate data (e.g., liability to an asset) or associate information that appears multiple times (i.e. relate the income types of a borrower who has multiple current employments).
- **DU Removals** – List of current DU data points and EDI codes that will no longer be supported in the DU Spec.

The DU Map Tab
The DU Map Tab is the core of the DU Spec. The columns are grouped under section headings to make it easier for lenders and technology solution providers to understand the data mapping. Refer to Figure 3 which illustrates the sections and columns. The following sections describe how each group of columns can be used to help you understand the DU Spec and how it maps to the redesigned Form 1003 and previous DU specifications.

![DU Map Tab](image)

**Figure. 3 List of Columns in the DU Map tab**

**Identification Reference Columns**
These four columns correlate the MISMO data points to the corresponding redesigned Form 1003 fields and ease the navigation and sorting on the DU Map tab.
The original order of the DU Spec is in the order of the fields in the redesigned Form 1003 “URLA Borrower Information Numbered Form” and “URLA Lender Information Numbered Form.”

- The Unique ID field is a unique numeric reference number for each data point in the DU Spec. If there is a specific question regarding a data point, be sure to provide the Unique ID in your communication to Fannie Mae.

- The Sort ID column provides the ability to reorganize the data based on the original DU Spec order.

- The Form Field ID is a numeric value assigned to each field in the redesigned Form 1003. The Form Field Name is the corresponding field name for the Form Field ID.

- The Form Field name contains the name of the field as shown on the Form 1003 documents for each Form Field ID.

- The Form Field IDs can be found in the “URLA Borrower Information Numbered Form” and “URLA Lender Information Numbered Form.” These components of the redesigned Form 1003 and all of the other components and versions of redesigned forms and supporting documents can be found on the Fannie Mae URLA webpage. https://www.fanniemae.com/singlefamily/uniform-residential-loan-application

Residential Loan Application Data Format Columns (RLD 1003 3.2 Table Reference)
The DU Spec includes four columns to help identify the existing DU Element (ID # and Name) that corresponds to the new DU Map MISMO v3.4 data point. These columns include:

- DU Element ID
- DU Element Name
- DU Field Information
- MISMO 2.3.1 Mapping

This information is taken from the Residential Loan Data Format 1003, V. 3.2 Integration Guide found on the Fannie Mae Technology Integration for DU web page at:

https://www.fanniemae.com/singlefamily/technology-integration?taskId=task-97

MISMO v3.4 Information Columns
The following is a set of six columns (in Figure. 3) used to identify the MISMO v3.4 data points within the DU Spec:

- Data Point XPATH
- Parent Container
- Data Point Name
- Data Point Definition
- Valid Enumerations accepted by DU
- Data Format

MISMO v3.4 Attribute Information Columns
The Attribute columns provide additional information about the behavior of the MISMO containers (i.e. repeating containers for multiple instances, etc.) and are not considered part of the data point mappings.

Conditionality Information Columns
These columns contain the conditionality for the following types of loan submission files for DU:

- DU (Conventional)
- FHA (Government)
- VA (Government)
- Credit
- EarlyCheck
The conditionality statements are considered “pseudo code” and should not be used for production code. The conditionality statements illustrate the expected behavior of conditional data points.

**Implementation Information Columns**

These columns contain information, in addition to the conditionality for each data point, about the usage and expected behavior for the data points and are grouped in two categories: (1) DU, Credit Request, and EarlyCheck; (2) FHA, VA.

The DU Spec contains additional data points not represented on the Form 1003. To identify the data points not on the form, click on the column “Form Field Name” and filter by ‘Not on Form.’

**Understanding Conditionality**

Conditionality defines the behavior associated with a data point and will vary according to the underwriting requirements for different loan products. There are three types of conditionality in the DU Spec:

- **Required (R)** - The associated data point must always be included in the Loan Application Submission file.
- **Conditional (C)** - The associated data point must be included in the Loan Application Submission file when a defined business condition exists as articulated in the Conditionality Statement.
- **Optional (O)** - The associated data point may be included in the Loan Application Submission file if the data is collected by the business and/or technical organization.

The conditionality has been determined by following business criteria established by Fannie Mae Credit Policy. The following key questions were considered when building the conditionality formulae:

- Is this data point a key component of the dataset that will always be part of the transaction no matter how the transaction varies?
- What is the business condition or transaction characteristics that determines whether the data point is required?
- Is the data point unique within the transaction, or is it one of a possible group or series, that would lead to the need to provide more than one instance?
- Is this in line with Fannie Mae Credit Policy business rules?

The following are conditionality examples in the DU Spec:

- **Required** data point: **MortgageType**
  - MortgageType = “Conventional” OR “FHA” OR “VA” OR “USDA Rural Development” and is required in each transmission
  - Required data points will not have a conditionality statement as they are always needed

- **Conditionally Required** data point: **BorrowerResidencyBasisType**
  - BorrowerResidencyBasisType = IF (BorrowerResidencyType = "Current" AND exists) OR (BorrowerResidencyType = "Prior" AND exists) is required when the borrower has provided a current or prior address information
  - Conditionally required data points will always have a conditionality statement
• **Optional** data point: *PropertyAcquiredDate* is not needed for DU but may be provided if collected.
  
  o Optional data points do not have conditionality requirements.

Government Loans
FHA loans and VA loans supported by DU have different data needs than do Conventional loans; and consequently, they have different conditions and conditionality statements.

**FHA Loans**
The FHA Loan conditionality and the corresponding conditionality statements in the DU Spec were reviewed by FHA and correspond to the 2014 version of the FHA Total Scorecard Underwriting requirements. Lenders and technology solution providers (TSPs) should use the information in the FHA column for data point usage.

**VA Loans**
The VA Loan conditionality and the corresponding conditionality statements in the DU Spec are used by the VA. The DU Spec contains a number of data points used by the VA that are not included in the Form 1003. Lenders and TSPs should use the information on all the VA fields (including those not present in the Form 1003) in the VA column for the data points used for VA loans.

**Credit Request**
There are no changes to the current process of requesting credit through DU. The DU Spec has been updated so the data needed for a credit request can be submitted in an XML format. These data points are identified within the DU Map Tab in the Credit Request column of the Conditionality Information columns.

**EarlyCheck**
The current process for EarlyCheck will remain the same; however, there are changes in conditionality for existing data points and new data points. The conditionality for EarlyCheck is included in the DU Spec. These data points are identified in the DU Map tab in the EarlyCheck column of the Conditionality Information columns.
Chapter 3: Planning For Implementation

This chapter includes the following topics:

- Changing from the 1003 v3.2 flat file to an XML file
- Upgrading from the MISMO DTD XML file to a MISMO Schema Based XML file
- Creating an XML Schema based XML file

Changing from the 1003 v3.2 flat file to an XML file

The following provides details on how to move from a 1003 v3.2 flat file to an XML schema submission file.

The 1003 v3.2 Flat File

Flat files have a fixed length file format which is the solution used when data is in a flat table; however, in the updated Loan Application Submission file, data will be grouped and organized in a Fannie Mae relational database. The relational database will require relational links to other tables (e.g., borrower information, property information, etc.), that can be better accomplished with the use of an XML file. In addition, special characters (e.g., a comma in the address text or field separators inside the flat file) may break and corrupt the data submission in the flat file. By using an XML file that is hierarchical and object-oriented, lenders and TSPs are less likely to encounter these issues.

The Structure of the Loan Application Submission File

The XML is a file with a well-defined structure which provides flexibility to represent complicated data structures. There are several advantages of using XML over a fixed length file format. Here are a few important ones:

1. **Organization.** An XML file can have nested objects with data organized by groups in hierarchical order. XML files have tag values that can be easily configured by searching through the tags and changing the value making the data easier to retrieve and update with an XML structure than in the case of a fixed length file format.

2. **Attributes.** It is possible to assign attributes to a given XML element beyond the data value of that container. In the DU Spec, there are attributes to provide more information about the data order, the role of an associated loan, and the version of the MISMO reference model. An example of the use of attributes for data order is to add a sequence number attribute to identify the different employers that a borrower may have when the borrower reports multiple current jobs.

3. **Context.** The data contained within a fixed length file format is meaningless if the position, field length and data explanation are not known. This is not the case with an XML file. The hierarchical nature of an XML file provides a greater degree of context to the information. An example of this is a street is part of an address, which is part of an owned property record which is also a part of a borrower’s asset record. This structure in XML shows how a header is not needed and the relationship of the street address to the asset. Refer to Example 2 to visualize the concept in an XML code:

```xml
<ASSET>
  <OWNED_PROPERTY>
    <PROPERTY>
      <ADDRESS>
        <AddressLineText>123 Main St.</AddressLineText>
        <CityName>Metropolis</CityName>
      </ADDRESS>
    </PROPERTY>
  </OWNED_PROPERTY>
</ASSET>
```

Example 2 XML code example to illustrate absence of a header
Upgrading from the MISMO DTD XML file to a MISMO Schema Based XML file

The MISMO v2.3.1 DTD file format is based on an older industry standard Document Type Definition (DTD) that is no longer supported by MISMO. The MISMO reference model Fannie Mae is using is version 3.4 and is a schema-based XML file format that represents data and groupings of data associated with business functions.

Moving from a 1003 flat file or a DTD file to an XML schema-based file

If this is your first time creating an XML schema-based file, consider using an XML editor with advanced tools for editing an XML. An XML editor will help create a loan submission file and make it easier to debug the file by validating it against the MISMO schema and the Fannie Mae extended schemas. Additionally, there are vendor systems and other tools that allow for automatic XML file creation from the lender’s source data. Regardless to the vendor system or tool, the resulting Loan Application Submission file must conform to the MISMO schema and the Fannie Mae extended schema files.

The MISMO v3.4 Reference Model and documents that support the data model have a suffix of “B324” which refers to the latest build of version 3.4 officially released by MISMO. Fannie Mae recommends reviewing these documents using an XML editor to better help you understand the MISMO v3.4 data model structures. This will make it easier to understand how to transition from a flat file to an XML schema-based file.

Creating XML Schema based submission file

The MISMO 3.4.0_B324.xsd file is the schema for the DU Spec. Depending on the XML editor tool, the XML file should be placed in the same folder where the MISMO schema file is saved.

An XML editor will first need to identify a root element to create the XML file. MESSAGE should be chosen at the root as this denotes the parent container and common ancestor to all containers within the XML file for the DU Spec. Refer to Figure 4 for creating a root element.

After indicating the root element, the editor should render an XML page where the Loan Application Submission file can be constructed step by step by adding the data points from the DU Spec. For more information on creating XML schema-based files, please refer to the W3 XML Tutorial on the http://www.w3schools.com website.
Chapter 4: Understanding the DU Spec from a Business Perspective

This chapter includes the following topics:

- What information is in the redesigned Form 1003 vs. the DU spec?
- Describing the information contained in the DU Specification
- Implementing ArcRoles in the XML file

This section will provide business teams with a better understanding of the data needed for DU. For further information on how to complete the Form 1003, review the Form 1003 Instructions on the URLA Web Page.

What Information is in the redesigned Form 1003 vs. the DU Specification?

The redesigned Form 1003 has sections populated by the borrower and other sections populated by the lender. The DU Spec is sorted in the order of the sections of the redesigned Form 1003 and includes data that is not captured in the form. This additional data is used to support the underwriting of loans submitted to DU and DU for Government Loans (DUG). The data that is not on the form is identified in the DU Map tab with “Not on Form” in the form field name column. Keep in mind, not every data point on the redesigned Form 1003 is included in the DU Spec.

Describing the Information contained in the DU Specification

Refer to the DU Spec for specific information on each data point’s conditionality on the Technology Integration for DU web page at:


It is important to understand when and why information is needed and how conditionality is used with the data points.

XML Content Section

This section does not appear in the redesigned Form 1003 but will be included in the XML file. This data is used as a File Header (not to be confused with Form Header) and contains the MISMO v3.4 file transmission information for DU.

Form Header Section

This section is used to provide information about the loan application that could be used by DU and other downstream systems to identify the loan.

MISMO allows multiple identifiers to be associated with each loan. Agency Case Number, FHA Case Number, Universal Loan Identifier (ULI) Number, and the Lender Loan Number are all acceptable loan identifiers. If multiple identifiers exist for a loan, you will be required to indicate the type of identifier to distinguish the different values, for example:

- A loan submitted by a lender will include a LoanIdentifierType of “LenderLoan “ or “UniversalLoan” and the corresponding identifier value.
- An FHA loan will require a LoanIdentifierType of “AgencyCase”.

In the form header section, DU expects to see a value for an AutomatedUnderwritingCaseIdentifier on resubmissions. This data point is not on the redesigned Form 1003.
Section 1: Borrower Information
This section is used to provide information on the applicant.

1a. Personal Information
In the redesigned Form 1003 each borrower will provide their name starting with First, Middle, Last and Suffix. For DU to pull a credit report, the First Name and Last Name must always be provided. Middle and Suffix are optional with Suffix being a new data point for DU. The redesigned Form 1003 will ask for the borrower’s alternate name following the same order as indicated in the Name field. The data in the Loan Application Submission file will follow the schema which is in alphabetical order (First, Last, Middle, and Suffix). For more information on this subject, refer to Chapter 1, Identify Data Issues.

Each borrower must enter their Social Security Number or Individual Taxpayer Identification Number (ITIN), provide their date of birth, and indicate their legal status (US Citizen, etc.).

Marital Status
Each borrower may indicate their marital status. For an unmarried borrower with a partner, lenders may present the Unmarried Addendum to the borrower.

Contact Information
Telephone information should not include letters or special characters. International phone numbers may be added without special characters (e.g., “+”, etc.). This information is conditional for DU but optional for Government loans. The email address is optionally collected, if provided.

Borrower’s Address
If a borrower has been at their current address for less than two years, the previous address information should be provided. Mailing address can be provided if it is different from the current address. A borrower will need to indicate if they own the property, pay rent or if they live rent free, indicating no primary housing expense (i.e., they do not pay rent to anyone). DU will collect this information.

Military Service
This information is required for VA loans and optional for all other types of loans. Each borrower is asked to indicate if they (or their deceased spouse) ever served or are currently serving in the United States Armed Forces.

1b. Current Employment/Self Employment and Income
Each borrower will indicate their current job(s) and income in this table. The employer’s name, address, employee’s position description and telephone are optional across all types of loan. The start date must be provided for FHA loans. The borrower’s time in their line of business is only consumed by FHA and should be provided to DU in months, regardless of how the borrower indicates it in the Form 1003. Refer to the DU Spec and search for more information on employment data information and conditionality.

The gross monthly income should be provided by an income type (i.e. base, bonus, etc.) and a corresponding value, please refer to the DU Spec for a list of enumerations that DU will accept. In addition, DU will also accept Foreign Income and Seasonal Income. These should be provided in your submission file as indicators and the corresponding value even though the URLA form does not specify foreign or seasonal income. The Foreign Income and Seasonal Income indicators are located in an Extension container under the Employment structure, hence the indicator applies to the employer level not to each income type. Please refer to the DU Spec for data point notation and to the FAQ Section in this document for examples.
Each self-employed borrower will not enter an amount for each income type but will indicate only their total monthly income (or loss with a negative value). Additionally, self-employed borrowers should indicate if they have an ownership share of more or less than 25%.

DU does not require the lender to provide the Gross Monthly Income Total for borrowers who are not self-employed. This information is optional and DU will calculate the total by aggregating the income items provided by the borrower. However for self-employed borrowers, DU will require the data point EmploymentMonthlyIncomeAmount and this amount may be positive or negative.

1c. If Applicable, Complete Information for Additional Employment/Self-Employment and Income
If a borrower has more than one current job, they will enter that information in this subsection and if needed repeat the subsection for additional current jobs. You should group and relate the borrower’s multiple current employers using ArcRoles. Moreover, you should be aware that your Loan Application Submission file will include a method to link multiple employers with corresponding income for one or more borrowers using ArcRoles. If you need more information, refer to the DU Spec under the ArcRoles tab and the ArcRoles supporting documentation on the URLA web page at:


1d. Previous Employment/Self-Employment and Income (provide at least 2 years current and previous employment)
The information in this section is similar to the tables in 1b and 1c above, except the borrower will only provide the total income per month (not broken down by income type) and indicate if they were the business owner or self-employed.

DU expects to receive the data point EmploymentIncomeIndicator in the loan application file to identify income from employment or self-employment as true. This indicator is used to differentiate self-employment / employment income from other-sourced non-employment income, for which the indicator is false.

1e. Income from Other Sources
A borrower that has income from non-employment sources should use the list provided in the Form 1003 to indicate the income type and corresponding monthly income amount. For income from other sources, the EmploymentIncomeIndicator should be false. For more information on income, please consult the Frequently Asked Questions in Chapter 5.

Section 2: Financial Information – Assets and Liabilities
This section is used to provide information on the borrower’s assets, debts, and expenses that will be considered when qualifying the borrower for the loan. Regardless of how many times shared assets and liabilities may be listed on the Form 1003, when submitting shared assets and liabilities in the Loan Application Submission file they should only be submitted once.

2a. Assets – Bank Accounts, Retirement, and Other Accounts You Have
Borrowers that have liquid asset accounts will identify the type, the financial institution, the account number and indicate a cash or market value per account. The list provided in the Form 1003 should be used as a reference to help borrowers complete this section. DU will calculate the total based on the information provided on this table.
2b. Other Assets You Have

Borrowers can identify other non-account assets such as earnest money, cash from the expected sale of an asset or real estate property, etc. DU will accept credit amounts as valid sources of borrower funds to close a mortgage loan transaction (i.e., Lease Purchase Funds, Sweat Equity, Trade Equity from Property Swap, etc.). DU will calculate the total based on the information provided on this table.

2c. Liabilities – Credit Cards, Other Debts, and Leases that You Owe

Borrowers with liabilities such as Installments loans, Leases (other than Real Estate), and Revolving Accounts (i.e., Credit Cards, Open 30-Day) will report outstanding balances in this section. If a liability with an associated unpaid balance is reported, DU will expect to find information about the corresponding type of account such as Creditor name, account number and monthly payment. DU has the ability to auto populate liabilities from the credit report, which lenders can decide to accept or not. DU expects that liabilities with a zero balance, such as an Open 30-Day account paid monthly, to be reported.

2d. Other Liabilities and Expenses

Other liabilities and expenses should be reported by the borrower (i.e., Alimony, Child Support, Separate Maintenance, and Job Related Expenses). Job related expenses are generally only required for VA loans and include items such as child care expenses.

Section 3: Financial Information – Real Estate

This section is used to provide information on real properties the borrower(s) own.

3a. Property You Own

Borrowers must identify information on real estate that they own. In the case of a refinance application, DU expects the Loan Application Submission file to include the OwnedSubjectPropertyIndicator. The Form 1003 table includes information about the property and the associated mortgage unless the borrower owns the property free of liabilities. Note that if the monthly insurance and taxes are included in the mortgage payment, the information should not also be identified separately in Insurance, Taxes, and Association Dues. The nature of this information is distributed among different MISMO containers and it will be necessary to link them to allow DU to understand the relationship, especially in the case of multiple properties and mortgages.

Refer to the corresponding diagram under Chapter 6 to better visualize the above concepts. The diagrams will give you context when discussing the information with your technical team.

3b. If Applicable, Complete Information for Additional Property

The purpose of this table is to identify additional properties. The table could repeat as necessary for additional properties a borrower owns. DU will expect the Loan Application Submission file to include multiple instances to allow reporting of all REO properties that the borrower declares. An ArcRole should be used to associate the REO properties to the corresponding liabilities (mortgages or home equity lines of credit), refer to the ArcRole Tab for more information. The following attribute in example 3 applies:

<ASSET SequenceNumber="8" xlink:label="ASSET_8">
</ASSET>

<LIABILITY SequenceNumber="1" xlink:label="LIABILITY_1">
</LIABILITY>
Example 3 Example of attribute use in XML

Refer to the ULAD Data Relationships using Xlink and MISMO ArcRoles Guide document and the ULAD ArcRoles tab in the ULAD Mapping document for more information on how to associate an Owned Property to a Liability on the URLA web page at: https://www.fanniemae.com/singlefamily/uniform-residential-loan-application.

Section 4: Loan and Property Information
This section is used to gather information on the loan and the subject property. The borrower is required to provide information on the purpose of the loan, the state where the property is located, the property’s number of units, and the intended occupancy.

4a. Loan and Property Information

Borrowers will indicate the loan amount requested and purpose of the loan, which could be either Purchase or Refinance. There are four types of occupancy on the URLA: (1) Primary Residence, (2) Second Home, (3) Investment, and (4) FHA Secondary Residence. The first three enumerations for the data point in the DU Spec are indicated in the PropertyUsageType; however, if occupancy will be FHA Secondary Residence, use the FHASecondaryResidenceIndicator.

4b. Other New Mortgage Loans on the Property You are Buying or Refinancing

Borrowers applying for additional loans secured by the subject property must provide the creditor’s information and type of lien(s) associated. For example, if the borrower is obtaining a new second mortgage at the same time they are obtaining the first subject mortgage, the information will be entered in this section.

Subordinate Liens beyond the second position need to be designated as “Other” under the LienPriorityType for DU.

4c. Rental Income on the Property You want to Purchase

If the subject property is a 2-4 Unit Primary or Investment property that the borrower is purchasing, the borrower will provide an estimate of expected monthly rental income. Lenders will calculate a net rental income. (Note that rental income on a property the borrower already owns is entered in Section 3.b.)

4d. Gifts or Grants You Have Been Given or Will Receive for this Loan

Borrowers who receive gifts and/or grants for the loan, must indicate the amount or market value and the party that provided it. (If the gift or grant has been deposited into an asset account of the borrower, e.g., checking account, then the amount of the gift is included in that asset account in addition to this section.)

Section 5: Declarations
Almost all of the declarations related to the Property and the Borrower’s finances must be answered on the Form 1003. The DU Spec does not capture any declaration explanations and therefore they do not need to be included in the Loan Application Submission file.
Section 6: Acknowledgements and Agreements

FHA loans require the date that the signature was executed to be included in the Loan Application Submission file. The signature date is optional for Conventional and VA loans.

Section 7: Demographic Information of Borrower

This information is not required by DU since this information is not used for underwriting but can be included in the XML if available. However, this information must be provided when delivering the loan to Fannie Mae, so it is required by EarlyCheck.

Ethnicity

Ethnicity is reported with \textit{HMDAEthnicityType} under a repeating structure for multiple answers. A borrower may have identified as Hispanic or Latino, Not Hispanic or Latino, or as both. In that case, use the \textit{HMDAEthnicityType} to capture both instances. If the borrower did not wish to provide this information, use the \textit{HMDAEthnicityRefusalIndicator}.

Ethnicity Origin is reported with \textit{HMDAEthnicityOriginType} under a repeating structure for multiple answers, e.g., Cuban, Mexican, Argentinian, Colombian, etc. If the borrower identified with many types included in the enumerations list, report each origin type separately under the repeating container. If the borrower identified with values not included in the enumerations list or a combination, use “Other” and list them under the \textit{HMDAEthnicityOriginTypeOtherDescription} separated by commas. Refer to example 4 for a combination of four ethnicity origins:

```
<GOVERNMENT_MONITORING>
  <HMDA_ETHNICITY_ORIGINS>
    <HMDA_ETHNICITY_ORIGIN>
      <HMDAEthnicityOriginType>Cuban</HMDAEthnicityOriginType>
    </HMDA_ETHNICITY_ORIGIN>
    <HMDA_ETHNICITY_ORIGIN>
      <HMDAEthnicityOriginType>Mexican</HMDAEthnicityOriginType>
    </HMDA_ETHNICITY_ORIGIN>
    <HMDA_ETHNICITY_ORIGIN>
      <HMDAEthnicityOriginType>Other</HMDAEthnicityOriginType>
    </HMDA_ETHNICITY_ORIGIN>
    <HMDA_ETHNICITY_ORIGIN>
      <HMDAEthnicityOriginType>Argentinian</HMDAEthnicityOriginType>
    </HMDA_ETHNICITY_ORIGIN>
  </HMDA_ETHNICITY_ORIGINS>
  <HMDA_RACES>
    <HMDA_RACE>
      <HMDARaceType>White</HMDARaceType>
    </HMDA_RACE>
    <HMDA_RACE_DETAIL>
      <HMDARaceTypeDetail>Other</HMDARaceTypeDetail>
    </HMDA_RACE_DETAIL>
  </HMDA_RACES>
  <EXTENSION>
    <OTHER>
      <ULAD:GOVERNMENT_MONITORING_EXTENSION>
        <ULAD:HMDA_ETHNICITIES>
          <ULAD:HMDA_ETHNICITY>
            <ULAD:HMDAEthnicityType>HispanicOrLatino</ULAD:HMDAEthnicityType>
          </ULAD:HMDA_ETHNICITY>
        </ULAD:HMDA_ETHNICITIES>
        <ULAD:HMDA_ETHNICITIES>
          <ULAD:HMDAEthnicityType>NotHispanicOrLatino</ULAD:HMDAEthnicityType>
        </ULAD:HMDA_ETHNICITIES>
        <ULAD:GOVERNMENT_MONITORING_EXTENSION>
          <OTHER>
            <HMDA_ETHNICITIES>
              <HMDA_ETHNICITY/>
            </HMDA_ETHNICITIES>
          </OTHER>
        </ULAD:GOVERNMENT_MONITORING_EXTENSION>
      </ULAD:GOVERNMENT_MONITORING_EXTENSION>
    </OTHER>
  </EXTENSION>
</GOVERNMENT_MONITORING>
```

Example 4 Other ethnicity origin types

Sex

Sex is reported in the \textit{HMDAGenderType} data point under a detail structure for a single answer. If the borrower checked both Male and Female on the Form 1003, use the
ApplicantHasSelectedBothMaleAndFemale enumeration. If the borrower did not wish to provide this information then use HMDAGenderRefusalIndicator.

Race

Race is reported in the HMDARaceType data point under a repeating structure for multiple answers. If the borrower identified with more than one race included in the enumerations list, report each race separately under the repeating container, e.g., Black or African American, White. If the borrower identified as Other Asian, e.g., Pakistani, Laotian, etc; or as Other Pacific Islander, e.g., Fijian, Tongan, etc., use the HMDARaceDesignationTypeOtherDescription.

If the borrower identified as a member of an American Indian or Alaska Native tribe, use the HMDARaceTypeAdditionalDescription to provide the name of the tribe as in the following example 5:

```xml
<GOVERNMENT_MONITORING>
  <HMDA_RACES>
    <HMDA_RACE>
      <EXTENSION>
        <ULAD:OTHER>
          <ULAD:HMDA_RACE_EXTENSION>
            <ULAD:HMDA_RACE_DETAIL>
              <ULAD:HMDARaceType>American Indian or Alaska Native</ULAD:HMDARaceType>
              <ULAD:HMDARaceTypesAdditionalDescription>Cherokee</ULAD:HMDARaceTypesAdditionalDescription>
            </ULAD:HMDA_RACE_DETAIL>
          </ULAD:HMDA_RACE_EXTENSION>
        </ULAD:OTHER>
      </EXTENSION>
    </HMDA_RACE>
  </HMDA_RACES>
</GOVERNMENT_MONITORING>
```

Example 5 Additional race type description

The MISMO HMDA Implementation Toolkit v.1.16 on the MISMO.org website is a tool that will help implementers understand the usage of the HMDA data in MISMO.

Section 8: Loan Originator Information

FHA loans require the Loan Originator Organization Name, Loan Originator Name, and NMLS IDs if the information is available. Although this information is optional for Conventional loans, DU will collect it, if made available.
Lender Information
This section is used to capture the information completed by the lender on the application. It is important to remember that the borrower does not complete any of the data points in this section.

L1. Property and Loan Information

The Lender will need to provide certain details regarding the loan transaction. These details can include information around the subject property or borrower residing in a Community Property State, items related to a Construction Loan, Refinance Type and Program, information on Energy Improvements, and the associated Project Type for the subject property.

L2. Title Information

For all loan types lenders must submit whether the Estate will be held in Fee Simple or Leasehold. For FHA loans, if the Estate is Leasehold then the expiration date for the lease must be provided.

L3. Mortgage Loan Information

All of the data points in this section are required with the exception of the time periods for the Adjustable Rate. The Proposed Housing Expenses should be provided by indicating each housing expense type and the corresponding monthly payment amount. DU will use this information to calculate the total. Proposed Monthly Payment as a total does not need to be included in the Loan Application Submission file.

L4. Qualifying the Borrower – Minimum Required Funds or Cash Back

The loan amount is required regardless of the type of mortgage. The sales contract amount is only required for purchase transactions. All of the data points in this section will be consumed by DU if provided in the Loan Application Submission file. Data points representing the total amounts are optional since DU will calculate the amount based on the information provided. In this section, FHA and VA loans follow the same conditionality approach as DU.

The value for “M. Other Credits” in the DU Spec has been split into two data points: PurchaseCreditType and ClosingAdjustmentItemType. The respective amounts for these data points shall be provided under PurchaseCreditAmount and ClosingAdjustmentItemAmount. DU will add these amounts as it does in the case of other total amounts.

There are instances in the DU Spec when multiple data points are used to represent a single value. This is the case when MISMO does not have one data point that includes all different types of values, i.e. Other Credits.

L5. Homeownership Education and Housing Counseling

The data points for this section are optional for Conventional and VA loans. FHA loans require the Counseling Type indicators and based on the response provided, the name of the counseling agency, the borrower’s name, and the date of the completion of the housing counseling/education program.
Chapter 5: Frequently Asked Questions

1. **What is the difference between the ULAD Mapping Document and the DU Specification (DU Spec)?**

   The ULAD Mapping document is a one to one mapping of MISMO data points to the redesigned Form 1003. It is a joint GSE reference document to help lenders and vendors understand how the form is mapped to MISMO v3.4. Fannie Mae expects DU customers to use the DU Spec to create the Loan Application Submission file. The DU Spec is not a one to one match for the data fields on the redesigned Form 1003. The DU Spec contains additional data elements needed to underwrite a loan.

2. **What documentation or tools are available to understand the MISMO v3.4 Reference Model?**

   Fannie Mae recommends downloading the MISMO v3.4 Reference Model from the MISMO web site at:


   The information is compressed in a zip file and includes the LDD, MISMO v3.4 Reference Model and other supporting documents.

3. **Which XML editors does Fannie Mae recommend?**

   Fannie Mae does not endorse a particular XML editor or software but suggests working with an XML editor that includes a graphic interface and a validation tool. These features will help to view the data structures and with debugging issues.

4. **Where could I get more information or additional material on the DU Use Cases?**

   Consult the Fannie Mae Integration web page at the following link:

   [https://www.fanniemae.com/singlefamily/technology-integration](https://www.fanniemae.com/singlefamily/technology-integration)

5. **What are attributes? Does the DU Spec include attributes?**

   The basic building blocks of the XML schema are data points and attributes. An attribute is used to add a unique label to a container or data point and its values must be in quotation marks. The DU Spec contains a list of attributes that is a subset of all available attributes in MISMO. For more information, refer to the attributes columns (MISMO v3.4 Attribute Name, MISMO v3.4 Attribute Definition, and MISMO v3.4 Attribute Usage Description) under the ULAD Mapping document or the DU Spec.

6. **When is the Sequence Number attribute used?**

   Sequence numbers are used when there are multiple values for the same data point within a repeating structure. The sequence number provides an order for multi-instance containers and is a mechanism to distinguish them from one another. For example, the borrower may report ownership of multiple assets and the following example 6 XML illustrates the usage of sequence number to identify the relationships:
Example 6 XML code example to illustrate usage of sequence number attribute

7. Do attributes have conditionality?

The DU Spec only includes conditionality for two attributes: 1) The MISMÖ Reference Model Identifier describes the MISMO version; and 2) the LoanRoleType includes two enumerations and needs to be indicated to denote the type of association the loan plays in the transaction (e.g., RelatedLoan). Both attributes are required, while the rest of the attributes in the DU Spec have a conditionality indicated as not applicable (N/A).

8. Is it possible to report an enumeration that is not present in the DU Spec? UPDATED

When an enumeration does not exist in the DU Spec, Fannie Mae will allow the use of free-form text data when there is an “Other” enumeration. The lender should include the free-form text in the TypeOtherDescription data points. There are no restrictions on text attribute (e.g., font type, case sensitive, etc.) but it is recommended that the use of special characters (such as & | / < > etc.) be limited as not to cause XML formatting errors. In some instances, there are specific descriptions for the TypeOtherDescription data points that must be used.
9. Is there a MISMO data point to capture the borrower’s signature?

The Form 1003 includes a section for the borrower’s signature; however, the Loan Application Submission file will only be populated with the date the loan application was signed. Lenders are not required to send a copy of the loan application in PDF, but may be required to store a copy of the signed application in the loan file depending on the loan type and investor/insurer/guarantor policies. A copy of the electronic signature could also be saved under the FOREIGN_OBJECT container.

10. What are extensions? Does the DU Spec file include extensions? UPDATED

As defined in the MISMO MEG 25 publication: The EXTENSION container provides maximum flexibility to a given version of a MISMO message by establishing a structured framework for adding data. Organizations can take advantage of XML Namespaces to place required data points not yet defined in the MISMO standard OR proprietary data points that shall never be included in the MISMO standard into a message for exchange with business partners. The definition of the EXTENSION container makes it possible to add additional content yet still validate against the MISMO standardized schema.

The DU Spec includes the following Parent Containers within EXTENSION containers:

- LANGUAGE_EXTENSION
- UNDERWRITING_VERIFICATION
- ASSET_DETAIL_EXTENSION
- DECLARATION_DETAIL_EXTENSION
- HMDA_ETHNICITY
- GOVERNMENT_MONITORING_DETAIL_EXTENSION
- HMDA_RACE_DESIGNATION_EXTENSION
- LOAN_DETAIL_EXTENSION
- URLA_TOTAL_EXTENSION
- EMPLOYMENT_EXTENSION
- BORROWER_FEATURE
- PROPERTY_VALUATION_DETAIL_EXTENSION

11. Why are the following data points not in the borrower section: “Mortgage Type Applied For,” “Note Rate,” “Loan Term,” “Fixed or Adjustable”?

These data points were reviewed and discussed with lenders and industry stakeholders and it was determined that the lender is best positioned to provide this information and not the borrower. As for the Loan Application Submission file, the data is sorted by the hierarchical order dictated by the MISMO schema.

12. What field should be used to identify the “sales price”?

The data point for “sales price” is “SalesContractAmount” and it’s unique ID 7.0001 in the DU Spec document. This data point is mapped to the “Sales Contract Price” in the Qualifying the Borrower Section of the Lender Loan Information Form in the redesigned Form 1003.

13. Do you support Excessive Contributions? If so, what fields will be used to submit this information? UPDATED
Fannie Mae Credit Policy has determined that Interested Party Contributions (IPC) will not be collected for Conventional loans. In the case of FHA loans, they only use one total amount for Sales Concessions without indicating a type of concession.

14. If a borrower has income from military employment where do we place this information on the form? There is only one field in the redesigned Form 1003 for military entitlements, where do you place values for combat pay, quarters allowance, etc.? **NEW**

The military base pay should be entered in the Base field of the Gross Monthly Income in the employment sections. The military entitlements and allowances should be totaled and included in the Military Entitlement field in the employment sections of the Borrower Information and Additional Borrower Form. Please consult the DU Spec for information on the data structure that will be used in your loan application submission file.

15. Is there a concept of primary employer? If so, when the borrower reports multiple current employers, how do you report a primary or secondary income (do you derive it by highest income, time spent, etc.)? **NEW**

The employment for the borrower may be reported as either Primary or Secondary by using the EmploymentClassificationType in your loan application submission file. The time spent or highest income have no relation to Primary or Secondary employment. When you submit your loan application submission file, you will need to relate the borrower’s income with the employer (please refer to ArcRoles in DU Spec or consult the Implementation Guideline) and indicate under the employer container instance if this is the Primary or Secondary employment.

16. Where can I find the supporting documents for the updated DU Spec?

All of the updated supporting documents are located on the DU Integration Web Page. Test cases to support implementation of the DU Specification MISMO V 3.4 can be found at DU Specification MISMO V3.4 Test Case Suite. The Extension File to the MISMO v 3.4 Schema, the Fannie Mae DU Extension Schema, and the GSE Extension Schema can all be found at Fannie Mae DU Wrapper and also on this page is the DU Implementation Guide MISMO V. 3.4.

The Purchase XML Sample and the Refinance XML Sample to support the redesigned Form 1003 mapping to MISMO V3.4 have been moved to the URLA Web Page at ULAD Mapping Test Cases.

17. What are the plans to support DU interfaces? Are you retiring XIS, making updates to the GUI?

For system to system calls, the existing XIS interface will be updated to support both DO broker and lender functions: import, request credit, underwrite, and export using the DU Spec format. There are also plans for a new GUI/UX that will support editing of the DU Spec data, including the new fields, for both DO brokers and lenders.

18. Is there any training on the DU Spec or Redesigned 1003 available?

Fannie Mae has prepared training material to help DU customers. Please refer to the Training section (located on the left column) of the URLA web page:

19. Why are ArcRoles needed? How do I establish an ArcRole for my Loan Application Submission file?

ArcRoles are needed for situations where a relationship within the XML file is not established through containment. ArcRoles allow for relationships between containers in different areas of the file. These relationships can be established by following the list of available ArcRoles in the corresponding ArcRole tab of the DU Spec. For more information on the notation or a step-by-step explanation on how to build an ArcRole, please refer to the following GSE Joint publication:

[https://www.fanniemae.com/content/technology_requirements/ulad-data-relationships.pdf](https://www.fanniemae.com/content/technology_requirements/ulad-data-relationships.pdf)

20. What is the behavior of DU regarding ArcRoles? Do I get an error if my submission file does not pass validation? What conditions could result in validation errors?

ArcRoles require that all labels included in the ArcRole syntax are unique within the file. This is necessary to create relationships without ambiguity. For example - two assets cannot have the same label.

An error in DU will be generated if the ArcRole doesn’t pass validation and it will stop the transaction to allow you to make corrections.

To prevent fatal errors, you need to ensure that the construction of your ArcRole is correct and unique. For guidance in the creation of ArcRoles, please refer to the DU Spec under the ArcRoles tab and to the GSE Joint publication mentioned in FAQ 17.

21. What is a schema validation? UPDATED

When a DU customer submits a Loan Application Submission file to DU, an XML interrogation process performs a series of steps to ensure the file is both well-formed and valid with respect to the MISMO schema. This last one is a validation used to determine compliance against MISMO specifications set forth in the MISMO Engineering Guidelines (MEGs), for example, containers must follow the hierarchical order established in the schema, containers must be in capital letters, etc. Please refer to the MISMO Engineering Guidelines for a complete list.

22. What is DU validation and where can information be found relevant to DU errors and messages? NEW

A validation process will take place on a submitted Loan Application file after DU has determined it to be both well-formed XML and schema compliant. The validation process will then determine if the file is complaint to the DU Specifications. To look for information on DU errors and messages please refer to the Published Integration Memo located under our DU web page, please see link to document:


23. Where should questions regarding implementation or the DU Spec be submitted? UPDATED

Customers should contact the following teams for support on any questions related to implementation or the DU Spec:

Integration Team: integration_support@fanniemae.com

ULAD Team: ulad@fanniemae.com
24. How can I easily identify the changes/edits between DU Spec Versions?

Changes are identified in the Revision History tab of the DU Spec. Furthermore, there will be a tab dedicated to the DU Map Updates, please refer to the last column to filter by the updated version number.

25. What are the schema files that DU requires for a DU Spec loan file submission? Are these files available for download and if so, where can these be found? UPDATED

DU requires the MISMO v3.4 Schema and other schema files to support a DU Spec loan file submission. The MISMO v3.4 Schema is part of a set of files under the MISMO v3.4 Reference model. The other schema files are extensions to support DU Spec, these extension files are the GSE Schema Extension and the DU Schema V3_4 Extension. The GSE Schema Extension and the DU Schema V3_4 Extension are both instantiated in the DU Wrapper 3.4.0_B324 Schema. The DU Wrapper Schema also validates that each Extension container is correctly placed in the Loan Application Submission file.

The aforementioned files are available for download and the following instructions illustrate the steps to gather these file:

a) Download the MISMO v3.4 Reference Model (Build 324) which includes the schema and supporting files from the Residential Specifications page in the MISMO site: http://www.mismo.org/standards-and-resources/residential-specifications

b) Download the Joint GSE Schema Extension, the DU Schema Extension, and the DU Wrapper from the same zip file on the Fannie Mac Technology Integration site: https://www.fanniemae.com/content/tool/ulad-du-schema-extensions.zip

c) Ensure that all of these files are located in the same directory and accessible when you validate your submission file

26. If the borrower reported foreign or seasonal income where do I specify this information? NEW

As explained above in Chapter One, Section 1b, the foreign or seasonal indicators are specified at the employment level. Hence, the information is not specific to an income type (i.e. bonus, commission, etc.). The following examples illustrates an example of foreign income that will be related through an ArcRole to an Employer, which means that all income items are characterized by the indicator regardless of it been true or false, in this example it is not foreign income:

Income Type usage example:
Foreign Income Indicator usage example:

```xml
<EMPLOYERS>
  <EMPLOYER SequenceNumber="1" xlink:label="EMPLOYER_1">
    <LEGAL_ENTITY>
      <LEGAL_ENTITY_DETAIL>
        <FullName>Abacus</FullName>
      </LEGAL_ENTITY_DETAIL>
    </LEGAL_ENTITY>
    <EMPLOYMENT>
      <EmploymentStatusType>Current</EmploymentStatusType>
      <SpecialBorrowerEmployerRelationshipIndicator>false</SpecialBorrowerEmployerRelationshipIndicator>
    </EMPLOYMENT>
  </EMPLOYER>
</EMPLOYERS>

Relating the Income to the Employment:

```xml
<RELATIONSHIPS xlink:type="RELATIONSHIPS">
  <RELATIONSHIP SequenceNumber="1" xlink:from="CURRENT_INCOME_ITEM_1" xlink:to="EMPLOYER_1" xlink:arcrole="urn:fdc:mismo.org:2009:residential:CURRENT_INCOME_ITEM_IsAssociatedWith_EMPLOYER"/>
  <RELATIONSHIP SequenceNumber="2" xlink:from="CURRENT_INCOME_ITEM_2" xlink:to="EMPLOYER_1" xlink:arcrole="urn:fdc:mismo.org:2009:residential:CURRENT_INCOME_ITEM_IsAssociatedWith_EMPLOYER"/>
</RELATIONSHIPS>

27. Does DU recognize the MCC credit to offset the proposed payment instead of the income? NEW

On Conventional and FHA loans when the Income Type refers to an MCC (IncomeType = “MortgageCreditCertificate”) the amount of the mortgage credit certificate will be added to income in DU calculations. However, this data point is NOT used for VA loans for income credit.

When the loan is an FHA loan and you want to credit the MCC amount against the HTI (and DTI), you must use the data field “GovernmentMortgageCreditCertificateAmount” instead of the IncomeType.

When the loan is a VA loan you must use the “GovernmentMortgageCreditCertificateAmount” to have the amount credited against the residual income calculation.

The “GovernmentMortgageCreditCertificateAmount” is one field used two different ways in DU depending on the loan type, FHA or VA. Also, you cannot submit both an IncomeType = “MortgageCreditCertificate” AND a “GovernmentMortgageCreditCertificateAmount” in the same loan submission file or DU will result in a recommendation of “ineligible”.

28. How should Present Housing Expenses be represented in the file? NEW

To fully represent Present Housing Expenses in your XML file, several containers in the XML will be utilized.

For present housing expenses related to home ownership, the first utilized container is OWNED_PROPERTY where the PropertyCurrentUsageType = “PrimaryResidence”. All expenses other than mortgage payments are reflected in the data point OwnedPropertyMaintenanceExpenseAmount.

```xml
<ASSET SequenceNumber="6" xlink:label="ASSET_6">
  <OWNED_PROPERTY>
    <OWNED_PROPERTY_DETAIL>
      <OwnedPropertyDispositionStatusType>Retain</OwnedPropertyDispositionStatusType>
      <OwnedPropertyMaintenanceExpenseAmount>598.00</OwnedPropertyMaintenanceExpenseAmount>
      <OwnedPropertySubjectIndictor>false</OwnedPropertySubjectIndictor>
    </OWNED_PROPERTY_DETAIL>
    <PROPERTY>
      <ADDRESS>
        <AddressLineText>4321 Cul de Sac St</AddressLineText>
        <CityName>Someplace</CityName>
        <PostalCode>02723</PostalCode>
        <StateCode>MA</StateCode>
      </ADDRESS>
      <PROPERTY_DETAIL>
        <PropertyCurrentUsageType>PrimaryResidence</PropertyCurrentUsageType>
        <PropertyEstimatedValueAmount>600000.00</PropertyEstimatedValueAmount>
      </PROPERTY_DETAIL>
    </PROPERTY>
  </OWNED_PROPERTY>
</ASSET>
```

To represent the OwnedPropertyMaintenanceExpenseAmount as a present housing expense, you will need to add a HOUSING_EXPENSE container. The HousingExpensePaymentAmount will equal the OwnedPropertyMaintenanceExpenseAmount. There is no requirement to individually list out each Maintenance Expense. You will just place the cumulative amount with a HousingExpenseType="Other" as shown here.

```xml
<HOUSING_EXPENSE>
  <HousingExpensePaymentAmount>598.00</HousingExpensePaymentAmount>
  <HousingExpenseTimingType>Present</HousingExpenseTimingType>
  <HousingExpenseType>Other</HousingExpenseType>
</HOUSING_EXPENSE>
```

The ASSET container listed above will be linked using an ArcRole to all LIABILITY containers which will contain the monthly mortgage payment(s) of the ASSET.

```xml
<RELATIONSHIP SequenceNumber="10" xlink:from="ASSET_6" xlink:to="LIABILITY_2" xlink:arcrole="urn:fdc:mismo.org:2009:residential/ASSET_IsAssociatedWith_LIABILITY"/>
```

An example of a LIABILITY container associated with the ASSET is shown here. Please remember that this LIABILITY container should be associated with a borrower using an ArcRole.
To list the mortgage(s) as a Present Housing Expense, you will add a HOUSING_EXPENSE container with HousingExpenseType = “FirstMortgagePrincipalAndInterest” as shown here. The HousingExpensePaymentAmount will be the sum of all LIABILITY containers associated with the ASSET container. It is imperative that the value in the HOUSING_EXPENSE container matches the sum of those amounts in the LIABILITY container(s) or there will be an error with the submission.

Should one of the Present Housing Expenses be Rent, this should be expressed using the LANDLORD_DETAIL container. The value of BorrowerResidencyBasisType must be “Rent” in RESIDENCE_DETAIL as shown here.

Covering these areas of the file will ensure that all Present Housing Expenses are included in any DU calculations that require this data.
29. How does DU determine which borrowers share financial information? NEW

DU inspects the RELATIONSHIP container in your loan application xml submission file to find out if there are ArcRoles that associate borrowers who share assets and liabilities. This means that the loan application must include the correct labels to tell DU which borrowers have indicated they share financial information. This is similar to joint credit information as it is declared in pairs. Moreover, a borrower can only have one ArcRole stating that shares financial information with other borrower and not with multiple borrowers.

The following three scenarios have been included to provide a visual representation and the expected ArcRole usage in your loan application xml submission file:

**Scenario 1**: Two Borrowers that share financial information apply for a loan and submit to DU

![Diagram showing two borrowers sharing information]

**One ArcRole to relate two borrowers that share credit information:**

```xml
<RELATIONSHIP SequenceNumber="1" xlink:from="BORROWER2" xlink:to="BORROWER_1" xlink:arcrole="urn:fdsnsmo.org:2009:residential/ROLE_SharesSufficientAssetsAndLiabilitiesWith_ROLE"/>
```
**Scenario 2:** Three Borrowers, two of them share financial information apply for a loan and submit to DU

![Diagram of scenario 2](image)

**Scenario 3:** Two pairs of borrowers that share financial information apply for a loan and submit to DU

![Diagram of scenario 3](image)

30. How is concurrent financing handled in the DU Spec? **NEW**

Concurrent or subordinate financing data is identified by the LoanRoleType = “RelatedLoan” located on the **URLA Section 4b. Other New Mortgage Loans on the Property You are Buying or Refinancing.** You can easily find all the data relevant to Related Loans by filtering on the new column “LoanRoleType” added to the DU spec. There are 11 data points in the Related Loan selection. Two of the Related Loan data points are not on the new URLA form, FundsSourceType and FundSourceTypeOtherDescription.
31. **What data points are used in Purchase Credits? Why does it appear in two sections of the URLA?** NEW

The DU spec references three data points that support Purchase Credits: PurchaseCreditType, PurchaseCreditAmount and PurchaseCreditTypeOtherDescription. All but two values published in the DU spec support URLA section 2b. *Other Assets You Have.*

The two values that do not support URLA Section 2b. are “RelocationFunds” and “BorrowerPaidFees”. This granular information supports URLA Section *TOTAL CREDITS, M. Other Credits* on the Lender Information form. DU expects to receive detailed other credits even though the form has the other credits as an aggregated total. Fannie Mae will calculate the total of other credits in DU.

“RelocationFunds” is a valid enumeration for PurchaseCreditType, however “BorrowerPaidFees” must be structured in the xml using PurchaseCreditType = “Other” and PurchaseCreditTypeOtherDesciption = “BorrowerPaidFees”.

Please refer to the DU spec for supported enumerations.

32. **How is rental income represented on the subject property and how is it represented on an REO property?** NEW

For Purchase transactions where there is rental income related to the subject property the net income value is displayed in section 4c. and should be sent in attribute “RentalEstimatedNetMonthlyRentAmount”, which is contained in the COLLATERAL structure…COLLATERAL/SUBJECTPROPERTY/PROPERTY_DETAIL. This attribute should only be used for purchase transactions.

For REO properties with rental income the net income value is displayed in Section 3a. and should be sent in attribute “OwnedPropertyRentalIncomeNetAmount”, which is contained in the ASSET structure ASSET/OWNEDPROPERTY/OWNEDPROPERTY_DETAIL.

The amount of the rental income that is net of mortgage payments, insurance, maintenance, taxes, and miscellaneous property expenses. If this field is not populated, then Desktop Underwriter will calculate it based on a vacancy factor. If the number is positive, it will be added to the qualifying income; if it is negative, it will be considered a liability and included in the total expense ratio calculation. Zero is also an acceptable value.

33. **How is joint or individual credit report ordered?** NEW

The CreditRequestType attribute in the CREDIT_INFORMATION element dictates joint versus individual credit. A value of 0=Individual and 1=Joint. Please refer to the XIS Underwriting and Credit Specification for additional information.
Chapter 6: Form 1003 Sections vs. MISMO Data Structures

This chapter includes a set of diagrams that show the MISMO data structures that supports each section of the Form 1003 (not all data points may be listed in the structures):

- **XML Content**
- **Form Header**
- **1a. Personal Information (2 pages)**
- **1b. Current Employment/Self Employment and Income (1c. is a repeat of 1b.)**
- **1d. Previous Employment/Self Employment and Income**
- **1e. Income from Other Sources**
- **2a. Assets - Bank Accounts, Retirement, and Other Accounts You Have**
- **2b. Other Assets You Have**
- **2c. Liabilities Credit Cards, Other Debts, and Leases that You Owe**
- **2d. Other Liabilities and Expenses**
- **3a. Property You Own (3b. is a repeat of 3a.)**
- **4a. Loan and Property Information**
- **4b. Other New Mortgage Loans on the Property You are Buying or Refinancing**
- **4c. Rental Income on the Property You Want to Purchase**
- **4d. Gifts or Grants You Have Been Given or Will Receive for This Loan**
- **5a. About this Property and Your Money for this Loan**
- **5b. About Your Finances**
- **6: Acknowledgements and Agreements**
- **7: Demographic Information of Borrower**
- **8: Loan Originator Information**
- **L1. Property and Loan Information**
- **L2. Title Information**
- **L3. Mortgage Loan Information (3 pages)**
- **L4. Qualifying the Borrower (2 pages)**
- **L5. Homeownership Education and Housing Counseling**
- **Unmarried Addendum**
1d. Previous Employment/Self-Employment and Income

- BORROWER
- EMPLOYERS
- EMPLOYER
- ADDRESS
- LEGAL ENTITY
- INDIVIDUAL
- NAME
- EMPLOYMENT
  - EmploymentStatusType
  - EmploymentPositionDescription
  - EmploymentStartDate
  - EmploymentEndDate
  - EmploymentBorrowerSelfEmployedIndicator
  - EmploymentMonthlyIncomeAmount

1e. Income from Other Sources

- BORROWER
- CURRENT INCOME
- CURRENT INCOME ITEMS
- CURRENT INCOME ITEM
- CURRENT INCOME ITEM DETAIL
  - IncomeType
  - IncomeTypeOtherDescription
  - CurrentIncomeMonthlyTotalAmount
  - EmploymentIncomeIndicator
2a. Assets - Bank Accounts, Retirement, and Other Accounts You Have

- **ASSETS**
  - **ASSET**
    - SequenceNumber (attribute)
  - **ASSET_DETAIL**
    - AssetType
    - AssetAccountIdentifier
    - AssetCashOrMarketValueAmount
  - **ASSET_HOLDER**
    - NAME
      - FullName

2b. Other Assets You Have

- **DEAL**
  - **LOANS**
  - **ASSETS**
  - **ASSET**
    - SequenceNumber (attribute)
  - **ASSET_DETAIL**
    - AssetType
    - AssetTypeOtherDescription
    - AssetCashOrMarketValueAmount
  - **PURCHASE_CREDITS**
    - **PURCHASE_CREDIT**
      - PurchaseCreditType
      - PurchaseCreditAmount
2c. Liabilities - Credit Cards, Other Debts, and Leases that You Owe

Legend:
- MISMO Containers
- MISMO Data Points

2d. Other Liabilities and Expenses
4b. Other New Mortgage Loans on the Property You Are Buying or Refinancing
4c. Rental Income on the Property You Want to Purchase

4d. Gifts or Grants You Have Been Given or Will Receive for This Loan
5a. About this Property and Your Money for this Loan

5b. About Your Finances

Legend:
- MISMO Containers
- MISMO Data Points

MISMO Data Points
- ULAD:SpecialBorrowerSellerRelationshipIndicator
- ROLE
- InvestorFeatureDescription
- BankruptcyChapterType
- IntentToOccupyType
- HomeownerPastThreeYearsType
- PriorPropertyUsageType
- FHASecondaryResidenceIndicator
- PriorPropertyTitleType
- UndisclosedBorrowedFundsIndicator
- UndisclosedBorrowedFundsAmount
- UndisclosedMortgageApplicationIndicator
- UndisclosedCreditApplicationIndicator
- PropertyProposedCleanEnergyLienIndicator
- UndisclosedComakerOfNoteIndicator
- OutstandingJudgmentsIndicator
- PresentlyDelinquentIndicator
- PartyToLawsuitIndicator
- PriorPropertyDeedInLieuConveyedIndicator
- PriorPropertyShortSaleCompletedIndicator
- PriorPropertyForeclosureCompletedIndicator
- BankruptcyIndicator

MISMO Containers
- DU: BORROWER EXTENSION
- DU: BORROWER FEATURES
- InvestorFeatureDescription
- DU: DUPolicyFeatureDescription
- ULAD: DECLARATION_DETAIL EXTENSION
- ULAD: SpecialBorrowerSellerRelationshipIndicator

DU Spec Implementation Guide
Fannie Mae Proprietary & Confidential
Section 6: Acknowledgements and Agreements
L1. Property and Loan Information

Legend:
- MISMO Containers
- MISMO Data Points

- Borrower
- Collaterals
- Deal
- Roles
- Loans
- Subject Property
- Loan
- Property Valuations
- Project
- Property Valuation
- Project Detail
- Document Specific Data Sets
- Property Detail
- Attachment Type
- Community Property State Indicator
- Property Acquired Date
- PUD Indicator
- Property Existing Clean Energy Lien Indicator
- Property in Project Indicator
- Property Structure Built Year
- Government Loan
- Construction Loan Type
- Construction To Permanent Closing Type
- Land Original Cost Amount
- Construction Improvement Costs Amount
- Refinance Improvements Type
- Refinance Improvement Costs Amount
- Refinance Cash Out Determination Type
- Refinance Primary Purpose Type
- Conversion Of Contract For Deed Indicator
- Renovation Loan Indicator
- Construction Loan Indicator
- Energy Related Improvements Indicator
- Government Refinance Type
- Government Refinance Type Other Description
- Property Energy Efficient Home Indicator
- URLA
- URLA Detail
- Government Refinance Type
- URLA Identifier
- Refinance Improvements Type
- Refinance Improvement Costs Amount
- Refinance Cash Out Determination Type
- Refinance Primary Purpose Type
- Conversion Of Contract For Deed Indicator
- Renovation Loan Indicator
- Construction Loan Indicator
- Energy Related Improvements Indicator
- Community Property State Resident Indicator
- Extension
- Other
- DU: Loan Detail Extension
- DU: Energy Improvement Amount
- DU: PACE Loan Payoff Amount
- Construction
- Construction Loan Type
- Construction To Permanent Closing Type
- Land Original Cost Amount
- Construction Improvement Costs Amount
L3. Mortgage Loan Information

Legend:
- MISMO Containers
- MISMO Data Points

- LOAN
- BUYDOWN
- BUYDOWN_OCCURRENCES
- BUYDOWN_OCCURRENCE
- PREPAYMENT_PENALTY
- PREPAYMENT_PENALTY_LIFETIME_RULE
- AMORTIZATION
- AFFORDABLE_LENDING
- GOVERNMENT_LOAN
- HOUSING_EXPENSES
- HOUSING_EXPENSE
- HMDA_LOAN
- HMDA_LOAN_DETAIL

- HMDARateSpreadPercent
- HMDA_LOAN_DETAIL
- PrepaymentPenaltyExpirationMonthsCount
- GovernmentMortgageCreditCertificateAmount
- SectionOfActType
- VAMaintenanceExpenseMonthlyAmount
- VAUtilityExpenseMonthlyAmount
- VAEntitlementAmount
- HousingExpenseTimingType
- HousingExpenseType
- HousingExpensePaymentAmount
- CommunitySecondsRepaymentType
- HUDIncomeLimitAdjustmentPercent
- CommunityLendingProductType
- LoanAmortizationPeriodType
- LoanAmortizationPeriodCount
- AmortizationType
- AmortizationTypeOtherDescription

BuydownInitialEffectiveInterestRatePercent
L4. Qualifying the Borrower

Continued
L5. Homeownership Education and Housing Counseling

Legend:
- MISMO Containers
- MISMO Data Points

PARTY

ROLES

ROLE

BORROWER

COUNSELING

COUNSELING EVENTS

COUNSELING EVENT

SequenceNumber (attribute)

COUNSELING_EVENT_DETAIL

CounselingType
CounselingConfirmationIndicator
CounselingFormatType
CounselingCompletedDate

PARTY_ROLE_IDENTIFIERS

PARTY_ROLE_IDENTIFIER

ROLE_DETAIL

PartyRoleType

LEGAL_ENTITY

INDIVIDUAL

NAME

FullName

LEGAL_ENTITY_DETAIL

ROLE

PartyRoleIdentifier
### Appendix A

#### Glossary of terms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>Automated Underwriting System</td>
</tr>
<tr>
<td>DU</td>
<td>Desktop Underwriter</td>
</tr>
<tr>
<td>DUG</td>
<td>Desktop Underwriter for Government Loans</td>
</tr>
<tr>
<td>FHFA</td>
<td>Federal Housing Finance Agency</td>
</tr>
<tr>
<td>GSE</td>
<td>Government Sponsored Enterprise(s) (Fannie Mae and Freddie Mac)</td>
</tr>
<tr>
<td>LOS</td>
<td>Loan Origination System</td>
</tr>
<tr>
<td>MISMO</td>
<td>Mortgage Industry Standards Maintenance Organization</td>
</tr>
<tr>
<td>ULAB</td>
<td>Uniform Loan Application Dataset (this term used throughout this document to refer to the MISMO v3.4 dataset mapped to the redesigned URLA)</td>
</tr>
<tr>
<td>UMCP</td>
<td>Uniform Mortgage Data Program</td>
</tr>
<tr>
<td>URLA</td>
<td>Uniform Residential Loan Application (also known as the Fannie Mae Form 1003)</td>
</tr>
</tbody>
</table>