Fannie Mae
Desktop Underwriter® Specification
Implementation Guide

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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 URLA form 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 an implementation guide to assist business and technical organizations in planning and implementing the new DU data requirements utilizing the MISMO v3.4 Reference Model. The DU Spec is designed as a supplement to the model, providing an overview of the data architecture, including reference information about the allowable structure, sequence, values, conditionality and format of DU loan data XML files. The DU Spec also describes how the data from the Residential Loan Data 1003 v3.2 flat file and the 2.3.1 XML file compares to the data mapped to the MISMO v3.4 Reference Model.

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 submission file (Loan Application file).
- Chapter 4 - provides information to help clarify the ULAD Mapping Document and the DU Spec from a business point of view.
- Chapter 5 - provides FAQs for creating and testing XML files.
- Chapter 6 - includes a set of diagrams that show the MISMO v3.4 data structures that support each section of the URLA.
- 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 URLA Form to the MISMO Data Model

In certain scenarios it may be helpful to create a side by side comparison of the URLA form 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 URLA form 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 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 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 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 Schema Extension file that Fannie Mae will provide.
   c. XML errors should be resolved prior to submitting the Loan Application file to DU.
2) Helpful hints to resolve issues or errors in the creation of the Loan Application file:
   a. When trying to find and compare data, the DU Spec follows the order of the URLA form layout; whereas the Loan Application File follows the MISMO v3.4 Build 324 Schema hierarchy 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 within a Parent Container do not always follow 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 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:

   ```xml
   <PARTIES>
   <PARTY>
   <INDIVIDUAL>
   <NAME>
   <NAME>SUE</NAME>
   <NAME>VICTORIA SUMMER</NAME>
   <NAME>SUMMER</NAME>
   <NAME>LASTNAME</NAME>
   <NAME>VICTORIA</NAME>
   </NAME>
   <ADDRESS>
   <ADDRESS>
   </ADDRESS>
   </INDIVIDUAL>
   </PARTY>
   </PARTIES>
   ```

   Example 1 Order of Containers in MISMO Schema
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 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 data and relationships that may be useful when implementing the loan application file.

MISMO v3.4 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.

![Figure. 1 Hierarchical relation of containers in Deal Sets structure](image)

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 can be used to display the hierarchical order of the model starting at the root container and following downward by expanding the child containers. See Figure. 2.

**Figure. 2 Example of a Complex Type container and a Single Type container**

Contents of the MISMO v3.4 Logical Data Dictionary (LDD)
The LDD is a Microsoft Office Excel® workbook containing information about the major 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 Specification to create a loan application file for submission to 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 a tabular structure within a Microsoft Office Excel workbook, containing multiple worksheets. The name of each worksheet appears on its sheet tab. The following worksheets provide useful information about 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 navigating the spec and referring to the URLA form when necessary.
- DU Enumerations – Includes the allowable values that are supported by DU and the enumeration definition provided by MISMO. Note: All ULAD enumerations can be linked to the Map tab through the Unique Identifier.
- Cardinality – Defines the minimum and maximum number of times that containers can repeat in DU.
- ARC Roles – List of supported xlink (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.

Identification Reference Columns

These four columns correlate the MISMO data points to the corresponding redesigned URLA form fields and ease the navigation and sorting on the DU Map tab.
• The published version is in the order of the redesigned URLA form field numbers from the “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 Mac.
• 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 URLA. 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 URLA documents for each Form Field ID.

Note: The Sort ID and Form Field ID columns cross-reference the MISMO data point to the corresponding field on the URLA numbered forms. All of the forms can be found on the Fannie Mae URLA webpage. [Link]

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 website.

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 offerings or systems for Fannie Mae:

• DU (Conventional)
• FHA (Government)
• VA (Government)
• Credit
• EarlyCheck
Note: The conditionality for each of the data points supporting these offerings or systems has been listed in separate columns for clarity and ease of use for the different DU products.

The conditionality statements are considered “pseudo code” and should not be considered the 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 grouped in two categories: (1) DU, Credit Request, and EarlyCheck; (2) FHA, VA.

| The DU Spec contains additional data points not represented on the URLA Form. 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 file.
- **Conditional (C)** - The associated data point must be included in the loan application 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 file if the data is captured.

The conditionality has been determined by answering the following key questions:

- 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?

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.
  
  - 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, in addition 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 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 URLA form. Lenders and TSPs should use the information on all the VA fields (including those not present in the URLA form) 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 are fixed length file format which are a reasonable solution for when the data is in a flat table; however, in the updated loan application file, the 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 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 attribute to identify the different employers that a borrower may have when the borrower reports multiple concurrent jobs.

3. **Context.** The hierarchical nature of an XML file provides a greater degree of context to the information. 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. For example a street is part of an address, which is part of an owned property record also a part of a borrower’s asset record. This structure in XML shows how the 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 transaction oriented and is based on an older industry standard Document Type Definition (DTD) that is no longer supported by MISMO. The MISMO model is now operating in version 3.x reference model based on 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 an XML submission file and make it easier to debug the file by validating the file against the MISMO Schema. Additionally, there are vendors and other tools that allow for automatic XML file creation from the lender’s source data.

The MISMO v3.4 Reference Model includes several documents that support the data model and are available on the MISMO.org website. These files have a suffix of “B324.” Fannie Mae recommends reviewing these documents with an XML editor to better understand the MISMO v3.4 data model structures as this is the version of the model that applies to the DU Spec. 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 in a location relative to the 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. For more information on this subject, refer to the W3 XML Tutorial on the w3schools.com website.
Chapter 4: Understanding ULAD from a Business Perspective

This chapter includes the following topics:

- What information is in the redesigned URLA form 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 reference on how to complete the URLA Form consult the URLA Instructions on the URLA Web Page.

What Information is in the redesigned URLA Form vs. the DU Specification

The redesigned URLA form has sections that are populated by the borrower and sections that are populated by the lender. The DU Spec is sorted in the order of the redesigned URLA form 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” within the form field name column. Keep in mind, not every data point on the redesigned URLA is in the DU Spec.

Describing the Information contained in the DU Specification

Refer to the DU Spec for specific information on each data point conditionality on the Technology Integration web page at: https://www.fanniemae.com/singlefamily/technology-integration. 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 URLA form 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 version 3.4 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, for example Agency Case Number (e.g., FHA Case Number, etc.), Universal Loan Identifier (ULI) Number, and the Lender Loan Number. If multiple identifiers exist for a loan, it will be required to indicate the type of identifier to distinguish the 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 AutomatedUnderwritingCaseldeentifier on resubmissions. This data point is not on the URLA form.

Section 1: Borrower Information

This section is used to provide information on the applicant.
1a. Personal Information
In the URLA form borrowers will provide their names 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 URLA forms will ask for the borrowers alternate names following the same order as indicated in the Name field. The data in the loan application file will follow the schema which is alphabetical order (First, Last, Middle, and Suffix).

Borrowers 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
Borrowers may indicate their marital status. For an unmarried borrowers 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 borrowers have 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. Borrowers will need to indicate if they own the property, pay rent or if they live rent free which also indicates no primary housing expenses (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. Borrowers are required to indicate if they are serving or have served in the United States Armed Forces this includes a surviving spouse and marriage where applicable.

1b. Current Employment/Self Employment and Income
Borrowers 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 type of loans. 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 URLA. 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 (e.g., Base, Bonus, etc.) and a corresponding value. 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 loan application file as indicators and the corresponding value even though the URLA form does not specify foreign or seasonal income. The following examples apply:

- $\text{IncomeType} = \text{Base}$ and $\text{CurrentIncomeMonthlyTotalAmount} = 1500.00$
- $\text{ForeignIncomeIndicator} = \text{true}$ and $\text{CurrentIncomeMonthlyTotalAmount} = 1000.00$
If the borrower is self-employed, the borrower should indicate if they have an ownership share of more or less than 25%. Moreover, self-employed borrowers will indicate their monthly income (or loss by entering a negative value).

DU does not require the lender to provide the Gross Monthly Income Total for borrowers who are not self-employed. This information is optional, 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 concurrent job, they will enter that information in the next subsection and if needed repeat the subsection for multiple current jobs. You should be able to group and relate the borrower’s multiple current employers using ArcRoles. Moreover, you should be aware that your loan application 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 ULAD ArcRoles tab and the ArcRoles supporting documentation on the URLA web page at: https://www.fanniemae.com/singlefamily/uniform-residential-loan-application.

1d. Previous Employment/Self-Employment and Income (provide at least 2 yrs 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 the income from employment as true or false. This indicator is used to differentiate self-employment income, employment income, and non-employment income from other sources.

1e. Income from Other Sources
Borrowers that have income from non-employment sources should use the list provided in the URLA to indicate the income type and corresponding monthly income amount. For income from other sources, the EmploymentIncomeIndicator should be false.

Section 2: Financial Information – Assets and Liabilities
This section is used to provide information on the borrower’s assets and debts that will be considered when qualifying the borrower for the loan.

2a. Assets – Bank Accounts, Retirement, and Other Accounts You Have
Borrowers that have these 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 URLA should be used as a reference to help borrowers complete this section.

2b. Other Assets You Have
Borrowers can identify other liquid or fixed 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.).
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, 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 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 file to include the OwnedSubjectPropertyIndicator. The URLA 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 file to include multiple instances to allow reporting of all REO properties that the borrower declares. An ArcRole shall be used to associate the REO properties to the corresponding liabilities (mortgages or home equity lines of credit), refer to the Arc role Tab for more information. The following attribute in example 3 applies:

```
<OWNEDPROPERTY xlink:label="REO_1" SequenceNumber="1"/>
```

```
<LIABILITY xlink:label="LIAB_1" SequenceNumber="1"/>
```

```
<RELATIONSHIP xlink:from="LIAB_1" xlink:to="REO_1" xlink:arcrole="urn:fdc:misko.org:2009:residential/LIABILITY_IsAssociatedWith_OWNEDPROPERTY"/>
```

Example 3 Example of attribute use in XML
Section 4: Loan and Property Information

This section is used to gather information on the loan’s purpose 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 application, 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 contained in the PropertyUsageType, however, to indicate the FHA Secondary Residence use FHASecondaryResidenceIndicator.

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

Borrowers with additional loans linked with 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, it will be in this section.

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 if they expect 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 that 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 are required and must be answered and provided in the loan application file.

Section 6: Acknowledgements and Agreements

FHA loans require the date that the signature was executed to be included in the loan application file. The signature date is optional for conventional and VA.
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 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 HMDAEthnicityType to capture both instances. If the borrower did not wish to provide this information, use the HMDAEthnicityRefusalIndicator.

Ethnicity Origin is reported with 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 HMDAEthnicityOriginTypeOtherDescription separated by commas. Refer to example 4 for a combination of four ethnicity origins:

```xml
<GOVERNMENT_MONITORING>
<HMDA_ETHNICITY_ORIGINS>
  <HMDA_EthnicityOriginType>Cuban</HMDA_EthnicityOriginType>
  <HMDA_EthnicityOriginType>Mexican</HMDA_EthnicityOriginType>
  <HMDA_EthnicityOriginType>Other</HMDA_EthnicityOriginType>
  <HMDA_EthnicityOriginType>Argentinian</HMDA_EthnicityOriginType>
</HMDA_ETHNICITY_ORIGINS>
</GOVERNMENT_MONITORING>
```

Example 4 Other ethnicity origin types
Sex

Sex is reported in the HMDAGenderType data point under a detail structure for a single answer. If the borrower identified as Male and Female on the URLA, 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 not listed under the enumerationsi.e. Pakistani, or as Pacific Islander i.e. Fijian, 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>
  <EXTENSION>
    <ULAD_OTHER>
      <ULAD:GOVERNMENT_MONITORING_EXTENSION>
        <ULAD:HMDA_ETHNICITIES>
          <ULAD:HMDA_ETHNICITY>
            <ULAD:HMDAEthnicityType>Not Hispanic or Latino</ULAD:HMDAEthnicityType>
            <ULAD:HMDA_ETHNICITY>
              <ULAD:HMDA_ETHNICITIES>
                <ULAD:GOVERNMENT_MONITORING_EXTENSION>
                  <ULAD_OTHER>
                    <EXTENSION>
                  </ULAD_OTHER>
                  </ULAD:GOVERNMENT_MONITORING_EXTENSION>
                </ULAD:HMDA_ETHNICITIES>
              </ULAD:HMDA_ETHNICITY>
            </ULAD:HMDA_ETHNICITY>
          </ULAD:HMDA_ETHNICITIES>
        </ULAD:HMDA_ETHNICITIES>
      </ULAD:GOVERNMENT_MONITORING_EXTENSION>
    </ULAD_OTHER>
  </EXTENSION>
</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 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 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

DU requires if the Estate will be held in Fee Simple or Lease Hold. For FHA loans, if the Estate is Lease Hold then the expiration date for the lease needs to 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 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 file. Data points representing the total amounts are optional since DU will calculate based on the information provided. In this section, the FHA and VA loans follow the same conditionality approach as DU.

The value for “M. Other Credits” in the DU Spec has been split in 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 is 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 type 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 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:

http://www.mismo.org/standards-and-resources/residential-specifications/mismo-version-34

The information is compressed in a zip file and includes the LDD, 3.4 Reference Model and other supporting documents.

2. 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.

3. 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

4. What are attributes? Does the ULAD 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 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 Master or the DU Spec.

5. 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 properties and the following XML example 6 illustrates the usage of sequence number to identify the relationships:
6. Do attributes have conditionality?

The DU Spec only includes conditionality for two attributes: 1) The MISMO 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, the rest of the attributes in the DU Spec have a conditionality indicated as not applicable (N/A).

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

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.). In some instances, there are specific descriptions for the TypeOtherDescription data points that must be used.

8. Is there a MISMO data point to capture the borrower’s signature?

The URLA includes a section for the borrower’s signature, however, the loan application 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.

9. What are extensions? Does the DU Spec file include extensions?

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 extensions

- URLATotalSellerCreditsAmount
- URLATotalOtherCreditsAmount
- URLATotalCreditsAmount
- IncludedInAssetAccountIndicator
- SpecialBorrowerSellerRelationshipIndicator
- ApplicationTakenMethodType
- HMDAGenderType
- HMDAEthnicityType
- HMDARaceDesignationType
- HMDARaceDesignationOtherAsianDescription
- HMDARaceDesignationOtherPacificIslanderDescription

10. 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 file, the data is sorted by the hierarchical order dictated by the MISMO Schema.
Chapter 6: URLA Sections vs. MISMO Data Structures

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

- **XML Content**
- **Form Header**
  - 1a. Personal Information
  - 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
- L4. Qualifying the Borrower
- L5. Homeownership Education and Housing Counseling
- Unmarried Addendum
1a. Personal Information

Legend:
- MISMO Containers
- MISMO Data Points

MISMO Data Points

DEAL

PARTIES

PARTY

LOANS

ADDRESS

ADDRESS

INDIVIDUAL

CONTACT_POINTS

CONTACT_POINT

CONTACT_POINT_DETAIL

CONTACT_POINT_EMAIL

CONTACT_POINT_TELEPHONE

GOVERNMENT_LOAN

VA Borrower Co Borrower Married Indicator

Borrower Count

Address Type Address Line Text Address Unit Identifier Address Unit Designator Type City Name State Code Postal Code Country Code

LastName

FirstName

MiddleName

SuffixName

LAST_NAME

FIRST_NAME

MIDDLE_NAME

SUFFIX_NAME

LastName

FirstName

MiddleName

SuffixName

LAST_NAME

FIRST_NAME

MIDDLE_NAME

SUFFIX_NAME

Contact Point Role Type

Contact Point Email Value

Contact Point Telephone Value

Contact Point Telephone Extension Value
1a. Personal Information

PARTY

TAXPAYER_IDENTIFIERS

TAXPAYER_IDENTIFIER

TaxpayerIdentifierType
TaxpayerIdentifierValue

ROLES

ROLE

BORROWER

ROLE_DETAIL

PartyRoleType

BORROWER_DETAIL

BorrowerBirthDate
MaritalStatusType
DependentCount
SelfDeclaredMilitaryServiceIndicator
SpousalVABenefitsEligibilityIndicator

DEPENDENTS

DEPENDENT

DependentAgeYearsCount

DECLARATION

DECLARATION_DETAIL

CitizenshipResidencyType

RESIDENCES

RESIDENCE

RESIDENCE_DETAIL

LANDLORD

LANDLORD_DETAIL

ADDRESS

AddressLineText
AddressUnitIdentifier
AddressUnitDesignatorType
CityName
StateCode
PostalCode
CountryCode

MILITARY_SERVICES

MilitaryStatusType
MilitaryServiceExpectedCompletionDate

HOUSING_EXPENSES

HOUSING_EXPENSE_SUMMARY

HousingExpensePresentTotalMonthlyPaymentAmount

BorrowerResidencyDurationMonthsCount
BorrowerResidencyBasisType
BorrowerResidencyType

Legend:
MISMO Containers
MISMO Data Points
2a. Assets - Bank Accounts, Retirement, and Other Accounts You Have

- ASSETS
- ASSET
- ASSET_HOLDER
- ASSET_DETAIL
- ASSETS_SUMMARY
  - LiquidAssetTotalCashOrMarketValueAmount
- NAME
  - FullName

Legend:
- MISMO Containers
- MISMO Data Points

2b. Other Assets You Have

- DEAL
- LOANS
- ASSETS
- ASSET
- ASSET_DETAIL
- ASSETS_SUMMARY
  - NonLiquidAssetTotalCashOrMarketValueAmount
- PURCHASE_CREDITS
- PURCHASE_CREDIT
- LOAN
- LOAN_PRODUCT
- LOAN_PRODUCT_DETAIL
  - ProductProviderName
  - ProductIdentifier
  - PurchaseCreditType
  - PurchaseCreditAmount
2c. Liabilities - Credit Cards, Other Debts, and Leases that You Owe

- NAME
  - FullName

Legend:
- MISMO Containers
- MISMO Data Points

2d. Other Liabilities and Expenses

- EXPENSE
  - ExpenseType
  - ExpenseTypeOtherDescription
  - ExpenseMonthlyPaymentAmount
  - ExpenseRemainingTermMonthsCount

- ROLE
  - BORROWER
    - GOVERNMENT_BORROWER
      - CAIVRSIdentifier

- LIABILITY
  - LIABILITY_DETAIL
    - LiabilityRemainingTermMonthsCount
    - LiabilityExclusionIndicator
4a. Loan and Property Information

[Diagram showing relationships between DEAL, COLLABERALS, LOANS, LOAN, TERMS_OF_LOAN, and various properties and data points related to loan and property information.]
4b. Other New Mortgage Loans on the Property You Are Buying or Refinancing

Legend:
- MISMO Containers
- MISMO Data Points
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

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Section 6: Acknowledgements and Agreements

Legend:
- MISMO Containers
- MISMO Data Points

MESSAGE

DOCUMENT_SETS

DOCUMENT_SET

DOCUMENTS

DOCUMENT

SIGNATORIES

SIGNATORY

EXECUTION

EXECUTION_DETAIL

ExecutionDate
Section 7: Demographic Information

MISMO Data Points

GOVERNMENT_MONITORING

GOVERNMENT_MONITORING_DETAIL

HMDA_RaceDesignationType
HMDARaceDesignationAdditionalDescription

HMDA_RaceDesigntationType
HMDARaceDesignationOtherAsianDescription
HMDARaceDesignationOtherPacificIslanderDescription

HMDA_RaceType
HMDA_RaceTypeAdditionalDescription

HMDA_EthnicityOriginType
HMDA_EthnicityOriginTypeOtherDescription

HMDA_ETHNICITY_ORIGIN

HMDA_EthnicityType

EXTENSION

EXTENSION

HMDA_EthnicityType

ApplicationTakenMethodType

OTHER

OTHER

ETHNICITIES

MISMO Containers

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L2. Title Information

Legend:

MISMO Containers

MISMO Data Points

PropertyEstateType
PropertyGroundLeaseExpirationDate
NativeAmericanLandsType
NativeAmericanLandsTypeOtherDescription

PropertyOwnerStatusType
RelationshipVestingType
RelationshipVestingTypeOtherDescription

PartyRoleType

TrustClassificationType

ROLE

ROLE_DETAIL

ROLE

LEGAL_ENTITY

LEGAL_ENTITY_DETAIL

INDIVIDUAL

PARTY

PARTIES

COLLATERALS

DEAL

COLLATERAL

SUBJECT_PROPERTY

PROPERTY_DETAIL

PROPERTY_OWNER
L3. Mortgage Loan Information

Legend:
MISMO Containers
MISMO Data Points

ADJUSTMENT
INTEREST_RATE_ADJUSTMENT
INTEREST_RATE_ADJUSTMENT
INDEX_RULES
INDEX_RULE
INTEREST_RATE_LIFETIME_ADJUSTMENT_RULE
INTEREST_RATE_PER_CHANGE_ADJUSTMENT_RULES
INTEREST_RATE_PER_CHANGE_ADJUSTMENT_RULE

AdjustmentRuleType
PerChangeRateAdjustmentFrequencyMonthsCount
MarginRatePercent
CeilingRatePercent

IndexType
IndexTypeOtherDescription
Appendix A

Glossary of terms

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</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 Systems</td>
</tr>
<tr>
<td>MISMO</td>
<td>Mortgage Industry Standards Maintenance Organization</td>
</tr>
<tr>
<td>ULAD</td>
<td>Uniform Loan Application Dataset (this term used throughout this document to refer to the MISMO v3.x dataset mapped to the redesigned URLA)</td>
</tr>
<tr>
<td>UMDP</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>