



Data Dictionary Certification Overview v1.4.0

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1 Data Dictionary Certification Introduction

RESO Data Dictionary Certification is awarded to data providers that conform to current RESO Data Dictionary Standards.

This document contains a summary of RESO Data Dictionary Certification requirements and should be read by any organization who wants:

- To learn more about the Data Dictionary and its benefits;
- To create a Data Dictionary compliant data structure; and
- To have an understanding of the certification process.

1.1 What is the Data Dictionary? It's Real Estate's "Rosetta Stone"

The Data Dictionary serves as the real estate industry's "Rosetta Stone" for real estate data. Hundreds of MLS, and other source providers, gather data. ***But what good is it if the data cannot be shared or understood?*** The Data Dictionary ensures that each system "speaks" the same language. It is the common standard that defines real estate data in consistent terms and data structures; a template data providers may should follow to format its most common fields.

1.2 Benefits of Data Dictionary Implementation

Simplified Data Integration: Data Dictionary structured data can move between systems without losing information; Data translation costs are reduced because of consistent data definitions and usage; and it is easier for MLS's, vendors and other third parties to develop new, data-driven applications and services that serve Realtors® across North America.

Quality Stamp of Approval: RESO Certification provides 3rd Party Verification of your client's functionality based on professional industry-wide standards.

Simplified Marketing: "RESO Certified Data Dictionary" says all you need to say about the interoperability of your online real estate information.

Promote support for Standards: Those receiving a RESO Certification may display the RESO Certified Logo on their website.

1.3 Detail Data Dictionary Certification Standards

This document is an overview of the detailed "Data Dictionary Certification Testing Rules" which can be found in this [PDF](#). The detailed rules will be followed if any conflicts between the overview and the testing rules are discovered.

1.4 Glossary

The [Data Dictionary Certification 1.4.0 Glossary](#) has a list of common terms used throughout the certification process.

2 RESO Certification Department and Applications

Data Dictionary Certification begins with a submitted application. The certification process, testing tool instructions, compliance rules, and links to the Certification applications are found at <http://www.reso.org/certification>. Only host providers that initiate listing information (i.e. MLS) can apply for a Data Dictionary certificate.

The detailed Certification and Compliance Rules and Guidelines should be reviewed prior to submitting an application: [PDF](#).

These are the steps applications follow through certification:

- 1: Application Verification:** RESO reviews the application and verifies the information. The applicant must sign and return the RESO Trademark Agreement before testing begins.
- 2: Compliance Testing:** RESO runs the appropriate tests for the applicant's data structure.
- 3a: Certification Delivery:** Certificates are provided to Applicants whose data structures' meet the required standards.
- 3b: Troubleshooting:** RESO will troubleshoot issues with those who do not qualify for a certificate.

2.1 RESO Online Application Forms

The online application gathers information for the certification process. **Payment of certification fees are required when the application is submitted.**

The **RESO Trademark Agreement** is sent to applicants after their application is submitted. The Trademark Agreement allows successful applicants to use the RESO official logos and certification badges.

2.2 Supplemental Application Information

The Supplemental Application Information provides details that cannot be submitted using ~~an~~ the online form. This information may include but not limited to:

- A list of Data Dictionary fields that are mapped by the applicant but may not be fully compliant;
- A list of all known [Compliance Warnings](#) and [Compliance Notices](#) (*e.g. problems that the applicant might know prior to submission*) as defined in the [detailed compliance rules](#), including a timeframe on when these warnings will be corrected;
- A list of Data Dictionary lookup values that are NOT located in the current Data Dictionary defined field;
- A list of Data Dictionary lookups values that appear more than once in the applicant's implementation. This only applies to those lookups with the same definition. Similarly named lookups with different definitions, based on locational context, do not need to be listed; or
- Any other information that the applicant would like to provide to RESO for evaluation.

2.3 Compliance Report Card

The Compliance Report Card shows applicants the testing results. Issues preventing certification will be included. Other non-complaint information not affecting certification will also be included. If requested, the Certification Department may advise applicants on corrective actions for discovered issues.

2.4 RESO Certificates

Details of those awarded certificates will have their information publicly posted at <http://www.reso.org/certificates>.

3 Data Dictionary Compliance Rules

Data Dictionary Compliance focuses on evaluating Data Dictionary fields found within the applicant's database. Applicant fields not found in the Data Dictionary are ignored. Data Dictionary fields not found in the Applicant's database are ignored.

3.1 Field-Level Compliance

Field-level compliance testing compares applicant's database fields with the Data Dictionary.

This table summarizes the five attributes of the data fields that will be evaluated. Only those field attributes addressed by the Data Dictionary will be evaluated.

An applicant's field **MUST** follow all applicable rules to be considered compliant. **Exact details of the field compliance rules are available here:** [PDF](#).

Field Attribute	Compliance Rules Summary
Field Name (a.k.a RETS 1x StandardName)	The applicant's field name MUST identically match the Data Dictionary StandardName when the definitions match. (See below for details on using different definitions.)
Data Type	The Data Dictionary provides a "Simple Data Type" for each field. The corresponding field within the applicant's database MUST be a logical match. The exact physical representation MAY vary. Some Data Type conversions MAY result in a "Cautionary Warning." (<i>See examples after table.</i>)
Precision	The applicant's data field precision SHOULD match the decimal value in the Data Dictionary "Sug. Max Length" column. Differences found will be marked with a "Cautionary Warning."
MaximumLength	The applicant MaximumLength field SHOULD be equal to or less than the "Sug. Max Length" found in the Data Dictionary. Lengths greater will be a "Cautionary Warning."
Lookups (a.k.a Enumerations)	<p>The applicant's lookup item MUST:</p> <ul style="list-style-type: none">● Match the Data Dictionary lookup value exactly; and● Be found in the same lookup field as defined in the Data Dictionary. <p>Synonyms or spelling variations are not allowed. Placement in other locations may result in non-compliance or a warning. External validation MAY be used.</p>

Field Names and Definitions: Special considerations will be made when comparing the applicant's field names and definitions with those found in the Data Dictionary.

- Fields with SIMILAR definitions and MATCHING StandardNames are compliant.
- Fields with SIMILAR definitions and DIFFERENT StandardNames are NOT compliant. In this situation, the StandardName MUST be changed to match the Data Dictionary to be compliant. Only the StandardName needs to be changed for compliance.
- Fields with DIFFERENT definitions and MATCHING StandardNames are allowed but MUST be listed in the Supplemental Application Information. **For example:** An applicant's "Subdivision" field has a different definition than the Data Dictionary.
- Fields with DIFFERENT definitions and DIFFERENT StandardNames are ignored.

Logical v. Physical Data Type Examples:

- Data Dictionary Booleans allows for true/false/NULL. A data structure may represent that physically with 1/0, Y/N, Yes/No, T/F, True/False, or by not providing data. It **SHOULD NOT** have more than the two choices. Providing a specific value to represent a non-response, like "None" OR "N/A," is allowed in lookups, along with the null value (e.g. no entry) in other data types.
- A Data Dictionary "Number (Whole)" **MAY** be any field that represents a whole number (e.g. Int, Long, Small, or Tiny). It **MAY NOT** be a Decimal or String.

Data Formatting: Compliance testing will **NOT** take field formatting into account (i.e. Parcel number, Phone numbers).

3.2 Compliance Warnings

Compliance Warnings are given when discrepancies between the applicant's implementation and the Data Dictionary but are not severe enough to warrant disqualification. **Compliance Warnings must be fixed within a specified time period to retain future certifications.**

Exact details of the compliance warnings are available in the Data Dictionary Certification Testing Rules: [PDF](#).

3.3 Compliance Notices

Compliance Notices, like warnings, are given when discrepancies between the applicant's implementation and the Data Dictionary but are not severe enough to warrant disqualification. **There are no deadlines for Compliance Notices to be fixed.**

Exact details of the compliance notices are available in the Data Dictionary Certification Testing Rules: [PDF](#).

4 Data Dictionary Certification Rules

Data Dictionary Certification is awarded on:

1. How many applicant fields are Data Dictionary compliant; and
2. If all “Core Fields” are compliant (*see below for ‘Core Fields’ definition*).

4.1 Data Dictionary Core Fields

Data Dictionary Core fields are those fields that, when found in the applicant’s database, **MUST** be compliant. Applicant’s are not required to implement core fields outside their business needs.

Applicants are strongly encouraged to have all of its fields Data Dictionary compliant (Core and Non-Core).

A list of the Data Dictionary Core Field are available in [Appendix A](#) of this document.

Data Dictionary 1.3 Core Field Summary:

Data Dictionary Resource	Number of Core Fields	Total Number of Fields
Property	166	571
Member	28	61
Office	22	38
Media	11	25
Open House	17	22

4.2 Current Data Dictionary Certification

Data Dictionary “Core” Certification is the minimum level of requirements that **MUST** be satisfied to receive certification.

1. All Data Dictionary Core Fields found **AND** mapped within the applicant’s system **MUST** be found compliant.
2. Core Fields found within the applicant’s Data Dictionary implementation that is **NOT** mapped or found to be compliant will prevent certification.

4.3 Future Data Dictionary Certifications

In the future, the Data Dictionary Certification will have multiple levels. This is an effort to provide additional recognition to those who implement more than the minimum requirement.

Higher levels of Data Dictionary Certification are named after different precious metals: Bronze, Silver, Gold, Platinum. (Any description of Data Dictionary Certification without a precious metal distinction will refer to the initial “Core” minimum level.)

5 Appendix A: Data Dictionary Core Fields

The following tables are a summary of the Data Dictionary Core Fields found in the [RESO Dictionary.Final.v.1.4.0 \(20150721T0000\).xlsx](#). Please refer to this spreadsheet for full details. The linked spreadsheet is the authoritative source if any differences are found between this document and the spreadsheet.

5.1 Property Resource Core Fields

Standard Name	Simple Data Type	Max Length	Lookup Status
ListingKey	String	255	
ListingId	String	255	
OriginatingSystemKey	String	255	
OriginatingSystemName	String	255	
ListingService	String List, Single	25	Open (to be Locked)
ListingAgreement	String List, Single	25	Open (to be Locked)
StandardStatus	String List, Single	25	Locked with Lookups
MlsStatus	String	50	
ListingContractDate	Date	24	
ContractStatusChangeDate	Date	24	
ExpirationDate	Date	24	
CancellationDate	Date	24	
ContingentDate	Date	24	
WithdrawnDate	Date	24	
PurchaseContractDate	Date	24	
CloseDate	Date	24	
OnMarketDate	Date	24	
OffMarketDate	Date	24	
ModificationTimestamp	Timestamp	24	
StatusChangeTimestamp	Timestamp	24	
OriginalEntryTimestamp	Timestamp	24	
ClosePrice	Number	14.2	
ListPrice	Number	14.2	
OriginalListPrice	Number	14.2	
BuyerAgencyCompensation	String	25	
BuyerAgencyCompensationType	String List, Single	25	Open (to be Locked)
DualVariableCompensationYN	Boolean		Open (to be Locked)
InternetEntireListingDisplayYN	Boolean		Open (to be Locked)
InternetAddressDisplayYN	Boolean		Open (to be Locked)
InternetConsumerCommentYN	Boolean		Open (to be Locked)

InternetAutomatedValuationDisplayYN	Boolean		Open (to be Locked)
PhotosCount	Number	2	
PhotosChangeTimestamp	Timestamp	24	
VirtualTourURLUnbranded	String	8000	
PublicRemarks	String	4000	
SyndicationRemarks	String	4000	
PrivateRemarks	String	4000	
ShowingInstructions	String	4000	
ShowingContactPhone	String	16	
ShowingContactPhoneExt	Number	10	
StreetNumber	String	25	
StreetNumberNumeric	Number	10	
StreetDirPrefix	String	15	
StreetName	String	50	
StreetAdditionalInfo	String	50	
StreetSuffix	String List, Single	25	
StreetSuffixModifier	String	25	
StreetDirSuffix	String	15	
UnitNumber	String	25	
City	String List, Single	50	Open
StateOrProvince	String List, Single	2	Open (to be Locked)
Country	String List, Single	2	Open (to be Locked)
PostalCode	String	10	
PostalCodePlus4	String	4	
UnparsedAddress	String	255	
PostalCity	String List, Single	50	Open (to be Locked)
CountyOrParish	String List, Single	50	Open (to be Locked)
Township	String	50	
MLSAreaMajor	String List, Single	50	Open
SubdivisionName	String	50	Open
Latitude	Number	12.8	
Longitude	Number	12.8	
ListAgentFirstName	String	50	
ListAgentMiddleName	String	50	
ListAgentLastName	String	50	
ListAgentPreferredPhone	String	16	
ListAgentPreferredPhoneExt	Number	10	
ListAgentOfficePhone	String	16	
ListAgentOfficePhoneExt	Number	10	

ListAgentCellPhone	String	16	
ListAgentEmail	String	80	
ListAgentKey	String	255	
ListAgentMlsId	String	25	
ListAgentStateLicense	String	50	
ListOfficeName	String	50	
ListOfficePhone	String	16	
ListOfficePhoneExt	Number	10	
ListOfficeKey	String	255	
ListOfficeMlsId	String	25	
CoListAgentFirstName	String	50	
CoListAgentMiddleName	String	50	
CoListAgentLastName	String	50	
CoListAgentPreferredPhone	String	16	
CoListAgentPreferredPhoneExt	Number	10	
CoListAgentOfficePhone	String	16	
CoListAgentOfficePhoneExt	Number	10	
CoListAgentCellPhone	String	16	
CoListAgentEmail	String	80	
CoListAgentKey	String	255	
CoListAgentMlsId	String	25	
CoListAgentStateLicense	String	50	
CoListOfficeName	String	50	
CoListOfficePhone	String	16	
CoListOfficePhoneExt	Number	10	
CoListOfficeKey	String	255	
CoListOfficeMlsId	String	25	
BuyerAgentFirstName	String	50	
BuyerAgentMiddleName	String	50	
BuyerAgentLastName	String	50	
BuyerAgentPreferredPhone	String	16	
BuyerAgentPreferredPhoneExt	Number	10	
BuyerAgentOfficePhone	String	16	
BuyerAgentOfficePhoneExt	Number	10	
BuyerAgentCellPhone	String	16	
BuyerAgentEmail	String	80	
BuyerAgentKey	String	255	
BuyerAgentMlsId	String	25	
BuyerAgentStateLicense	String	50	

BuyerOfficeName	String	50	
BuyerOfficePhone	String	16	
BuyerOfficePhoneExt	Number	10	
BuyerOfficeKey	String	255	
BuyerOfficeMlsId	String	25	
CoBuyerAgentFirstName	String	50	
CoBuyerAgentMiddleName	String	50	
CoBuyerAgentLastName	String	50	
CoBuyerAgentPreferredPhone	String	16	
CoBuyerAgentPreferredPhoneExt	Number	10	
CoBuyerAgentOfficePhone	String	16	
CoBuyerAgentOfficePhoneExt	Number	10	
CoBuyerAgentCellPhone	String	16	
CoBuyerAgentEmail	String	80	
CoBuyerAgentKey	String	255	
CoBuyerAgentMlsId	String	25	
CoBuyerOfficeName	String	50	
CoBuyerOfficePhone	String	16	
CoBuyerOfficePhoneExt	Number	10	
CoBuyerOfficeKey	String	255	
CoBuyerOfficeMlsId	String	25	
PropertyType	String List, Single	50	Open (to be Locked)
PropertySubType	String List, Single	50	Open with Lookups
LotSizeArea	Number	14.2	
LotSizeUnits	String List, Single	25	Open (to be Locked)
LeaseTerm	String List, Single	25	Open (to be Locked)
LandLeaseYN	Boolean		Open (to be Locked)
GrossScheduledIncome	Number	14.2	
GrossIncome	Number	14.2	
OperatingExpense	Number	14.2	
NetOperatingIncome	Number	14.2	
CapRate	Number	5.2	
NumberOfUnitsTotal	Number	3	
BusinessType	String List, Single	50	
BedroomsTotal	Number	3	
BathroomsTotalInteger	Number	3	
BathroomsTotalDecimal	Number	5.2	
BathroomsFull	Number	3	
BathroomsHalf	Number	3	

BathroomsThreeQuarter	Number	3	
BathroomsOneQuarter	Number	3	
LivingArea	Number	14.2	
LivingAreaUnits	String List, Single	25	Open (to be Locked)
PropertyAttachedYN	Boolean		Open (to be Locked)
GarageYN	Boolean		Open (to be Locked)
GarageSpaces	Number	14.2	
StoriesTotal	Number	3	
Stories	Number	2	
Levels	String List, Multi	1024	Open (to be Locked)
YearBuilt	Number	4	
MobileLength	Number	4	
MobileWidth	Number	4	
Make	String	50	
Model	String	50	
ParcelNumber	String	50	

5.2 Member Resource Core Fields

Standard Name	Simple Data Type	Max Length
MemberKey	String	255
OriginatingSystemMemberKey	String	255
MemberMIsId	String	25
MemberNationalAssociationId	String	25
MemberFirstName	String	50
MemberMiddleName	String	50
MemberLastName	String	50
MemberEmail	String	80
MemberPreferredPhone	String	16
MemberPreferredPhoneExt	Number	10
MemberOfficePhone	String	16
MemberOfficePhoneExt	Number	10
MemberMobilePhone	String	16
MemberAOR	String List, Single	50
MemberStateLicense	String	50
MemberAddress1	String	50
MemberAddress2	String	50
MemberCity	String	50
MemberStateOrProvince	String List, Single	2
MemberPostalCode	String	10
MemberPostalCodePlus4	String	4
MemberCountyOrParish	String List, Single	50
MemberCountry	String List, Single	2
MemberStatus	String List, Single	25
OfficeKey	String	255
OfficeMIsId	String	25
OriginalEntryTimestamp	Timestamp	24
ModificationTimestamp	Timestamp	24

5.3 Office Resource Core Fields

Standard Name	Simple Data Type	Max Length
OfficeKey	String	255
OriginatingSystemOfficeKey	String	255
OfficeMlsId	String	25
OfficeName	String	50
OfficePhone	String	16
OfficePhoneExt	Number	10
OfficeEmail	String	80
OfficeNationalAssociationId	String	25
OfficeBrokerMlsId	String	25
OfficeBrokerKey	String	255
OfficeAddress1	String	50
OfficeAddress2	String	50
OfficeCity	String	50
OfficeStateOrProvince	String List, Single	2
OfficePostalCode	String	10
OfficePostalCodePlus4	String	4
OfficeCountyOrParish	String List, Single	50
OfficeStatus	String List, Single	25
OriginalEntryTimestamp	Timestamp	24
ModificationTimestamp	Timestamp	24
MainOfficeKey	String	255
MainOfficeMlsId	String	25

5.4 Media Resource Core Fields

Standard Name	Simple Data Type	Max Length
MediaKey	String	255
ResourceRecordKey	String	255
ResourceRecordID	String	255
OriginatingSystemMediaKey	String	255
MediaObjectID	String	255
ChangedByMemberID	String	255
ChangedByMemberKey	String	255
ModificationTimestamp	Timestamp	24
MediaURL	String	8000
Order	Number	4
ResourceName	String List, Single	50

5.5 Open House Resource Core Fields

Standard Name	Simple Data Type	Max Length
OpenHouseKey	String	255
OpenHouseId	String	255
OriginatingSystemKey	String	255
ListingKey	String	255
ListingId	String	255
ModificationTimestamp	Timestamp	24
OpenHouseDate	Date	24
OpenHouseStartTime	Timestamp	24
OpenHouseEndTime	Timestamp	24
ShowingAgentMlsID	String	25
ShowingAgentKey	String	255
ShowingAgentFirstName	String	50
ShowingAgentLastName	String	50
OpenHouseType	String List, Single	25
OpenHouseRemarks	String	500
Status	String List, Single	25