# Real Estate Data Interchange Standard:
# Real Estate Transaction DTD
# (RETML)

Draft of May 11, 1999
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# 1  Introduction

## 1.1  Purpose

This specification is the second part of a two part series defining the interchange of real estate information. The initial document in this set, the Real Estate Transaction Specification specifies a method used for the exchange of real estate property information. This second document defines the general structure of the XML DTD that can be used for the exchange of real estate property information, with the intent of eventually describing all interchangeable aspects of a real estate transaction. It defines a standard interface by which a general purpose interchange of data can be provided.

## 1.2  Certification

The National Association of REALTORS® (NAR) intends to implement a certification program under which a third-party product may be declared RETS Compliant, and include an NAR-designated logo on the client or server based product and any associated promotional materials.

## 1.3  Scope

This specification is intended to define only the minimum set of fields that must be supported in order to earn a "Compliant" certification. This specification is extensible and nothing in the specification precludes a vendor from adding data or functionality over and above that detailed here. However, when a data element is provided it must follow the format specified in this specification in order to earn certification.

## 1.4  General Comments

This DTD uses an object-oriented approach where base objects have been defined and other objects are built on top of them. All data is passed as attributes to the elements.

Specific data field attributes within the DTD have been intentional left undefined and set to CDATA. The purpose of this specification is not to map every attribute of every field. Instead, it is intended to provide a common set of fields that can be used across all compliant systems.

## 2 DTD

```
<?xml version="1.0"?>
<!--   Real Estate Transaction Specification (RETS) DTD  -->
<!--   Real Estate Transaction Markup Language (RETML)  -->
<!--
     submitted by:
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     WyldFyre Technologies, Inc.
     DRAFT Document Version 1.0  05/11/1999
-->


<!ELEMENT ResidentialProperty (Listing, Rooms?, Occupant?)>
<!ATTLIST ResidentialProperty
     Bedrooms  CDATA #REQUIRED
     Baths  CDATA #REQUIRED
     Subdivision  CDATA #IMPLIED
     AssociationFee  CDATA #IMPLIED
     SquareFootage  CDATA #IMPLIED
     LotSize  CDATA #IMPLIED
     Parking  CDATA #IMPLIED
     Stories  CDATA #IMPLIED
     YearBuilt  CDATA #IMPLIED
     Heating  CDATA #IMPLIED
     Cooling  CDATA #IMPLIED
     Pool  CDATA #IMPLIED
     InteriorFeatures  CDATA #IMPLIED
     ExteriorFeatures  CDATA #IMPLIED
     Type  CDATA #IMPLIED
     >

<!ELEMENT CommonInterest (ResidentialProperty)>
<!ATTLIST CommonInterest
     BuildingType  CDATA #REQUIRED
     TotalUnits  CDATA #REQUIRED
     BuildingName  CDATA #IMPLIED
     ComplexFeatures  CDATA #IMPLIED
     Ownership  CDATA #IMPLIED
     >

<!ELEMENT LotsAndLand (Listing)>
<!ATTLIST LotsAndLand
     Acreage  CDATA #REQUIRED
     Zoning  CDATA #REQUIRED
     Utilities  CDATA #IMPLIED
     PresentUse  CDATA #IMPLIED
     Topography  CDATA #IMPLIED
     ParcelAccess  CDATA #IMPLIED
     DevelopmentStatus  CDATA #IMPLIED
     ExistingStructures  CDATA #IMPLIED
     >

<!ELEMENT MultiFamily (CommonInterest)>
<!ATTLIST MultiFamily
     AnnualRent  CDATA #REQUIRED
     AnnualGross  CDATA #REQUIRED
     AnnualExpenses  CDATA #REQUIRED
     NetIncome  CDATA #REQUIRED
     VacancyFactor  CDATA #IMPLIED
     TenantPays CDATA #IMPLIED
```

```
        OwnerPays CDATA #IMPLIED
        Laundry CDATA #IMPLIED
        >


<!ELEMENT Listing (StreetAddress, ListingData, MLSInformation, GeographicData,
SalesData?, SchoolData?, TaxData?, PictureData*)>
<!ATTLIST Listing
        ModificationTimestamp  CDATA #REQUIRED
        ListingID  CDATA #REQUIRED
        ParcelNumber  CDATA #IMPLIED
        View  CDATA #IMPLIED
        >

<!ELEMENT GeographicData (#PCDATA)>
<!ATTLIST GeographicData
        Latitude  CDATA #REQUIRED
        Longitude  CDATA #REQUIRED
        County  CDATA #IMPLIED
        Directions  CDATA #IMPLIED
        MapCoordinate  CDATA #IMPLIED
        MapURL  CDATA #IMPLIED
        >

<!ELEMENT SchoolData (#PCDATA)>
<!ATTLIST SchoolData
        ElementarySchool  CDATA #IMPLIED
        MiddleSchool  CDATA #IMPLIED
        HighSchool  CDATA #IMPLIED
        >

<!ELEMENT TaxData (StreetAddress, MailingAddress)>
<!ATTLIST TaxData
        TaxID  CDATA #REQUIRED
        ModificationTimestamp  CDATA #IMPLIED
        LegalDescription  CDATA #IMPLIED
        OwnersName  CDATA #IMPLIED
        AssessedValuation  CDATA #IMPLIED
        PropertyZoning  CDATA #IMPLIED
        ParcelMapURL  CDATA #IMPLIED
        >

<!ELEMENT PictureData (#PCDATA)>
<!ATTLIST PictureData
        PictureID  CDATA #IMPLIED
        ModificationTimestamp  CDATA #IMPLIED
        PictureURL  CDATA #REQUIRED
        PictureCaption  CDATA #IMPLIED
        >

<!ELEMENT REOffice (ContactInformation, StreetAddress)>
<!ATTLIST REOffice
        OfficeID  CDATA #IMPLIED
        NRDSOfficeID  CDATA #IMPLIED
        Name  CDATA #IMPLIED
        >

<!ELEMENT REAgent (ContactInformation, StreetAddress)>
<!ATTLIST REAgent
        AgentID  CDATA #IMPLIED
        NRDSMemberID  CDATA #IMPLIED
        Name  CDATA #IMPLIED
        >
```

```
<!ELEMENT REAgentInformation (REAgent, REOffice)>

<!ELEMENT Occupant (ContactInformation)>
<!ATTLIST Occupant
      Name  CDATA #IMPLIED
      >

<!ELEMENT ContactInformation (#PCDATA)>
<!ATTLIST ContactInformation
      OfficePhone  CDATA #IMPLIED
      CarPhone  CDATA #IMPLIED
      CellPhone  CDATA #IMPLIED
      HomePhone  CDATA #IMPLIED
      Pager  CDATA #IMPLIED
      Email  CDATA #IMPLIED
      WWW  CDATA #IMPLIED
      >

<!ELEMENT StreetAddress (#PCDATA)>
<!ATTLIST StreetAddress
      StreetNumber  CDATA #IMPLIED
      StreetDirPrefix  CDATA #IMPLIED
      StreetName  CDATA #IMPLIED
      StreetAdditionalInfo  CDATA #IMPLIED
      StreetDirSuffix  CDATA #IMPLIED
      StreetSuffix  CDATA #IMPLIED
      UnitNumber  CDATA #IMPLIED
      City  CDATA #IMPLIED
      State  CDATA #IMPLIED
      Country  CDATA #IMPLIED
      PostalCode  CDATA #IMPLIED
      CarrierRoute  CDATA #IMPLIED
      Unstructured  CDATA #IMPLIED
      >

<!ELEMENT MailingAddress (StreetAddress)>

<!ELEMENT ListingData (REAgent+, REOffice)>
<!ATTLIST ListingData
      ListDate  CDATA #REQUIRED
      ListPrice  CDATA #REQUIRED
      ExpirationDate  CDATA #IMPLIED
      ShowingInstructions  CDATA #IMPLIED
      ListingType  CDATA #IMPLIED
      Commission  CDATA #IMPLIED
      Remarks CDATA #IMPLIED
      PublicRemarks CDATA #IMPLIED
      >

<!ELEMENT SalesData (REAgent+, REOffice )>
<!ATTLIST SalesData
      SalesDate  CDATA #REQUIRED
      SalesPrice  CDATA #IMPLIED
      CloseDate  CDATA #IMPLIED
      >

<!ELEMENT MLSInformation (#PCDATA)>
<!ATTLIST MLSInformation
      StandardStatus  (Active | Pending | Closed | OffMarket ) #REQUIRED
      ListingStatus  CDATA #IMPLIED
      OriginalListPrice  CDATA #IMPLIED
```

```
        ListingArea  CDATA #IMPLIED
        StatusChangeDate  CDATA #IMPLIED
        DaysOnMarket  CDATA #IMPLIED
        >

<!ELEMENT RoomData (#PCDATA)>
<!ATTLIST RoomData
        Size  CDATA #IMPLIED
        >

<!ELEMENT DiningRoom (RoomData)>
<!ELEMENT LivingRoom (RoomData)>
<!ELEMENT FamilyRoom (RoomData)>
<!ELEMENT Basement (RoomData)>

<!ELEMENT Rooms (DiningRoom?, LivingRoom?, FamilyRoom?, Basement?)>
```

## 3   Sample Data

To be supplied.

# 4  Acknowledgments

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