

RE/MAX EU XML Data Import Specification

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# Introduction

This document contains all the information needed for you to prepare the office, agent and property data for integration with the RE/MAX Worldwide Listing Database. In this document you will find all the specifications required to create the XML documents to transfer the data and corresponding images.

## Reader Requirements

If XML is a technology which is new to you, you may need supplemental XML documentation on hand to aid you in implementing the RE/MAX Europe XML Data Import (REX) specifications. Developers involved in this process should be very familiar with XML, XSDs, and XML and database implementation.

It is highly recommended that the creator of the XML use an XML validation tool that will allow proper validation of the XML against the appropriate XSD.

## Additional Files Required

There are a number of files that must accompany this document and are referenced throughout these chapters. Please ensure you have the following files before getting started:

**REX EU Data Dictionary v3.2.xls** - Spreadsheet file with Description of each field and a complete list of valid values for drop-down fields

**Office\_EU\_v3\_2** - Document Type Definition (XSD) for Offices. Used to validate the Office XML file

**Office\_EU\_Sample\_Full\_v3.2** - Sample file for Office with all data that could be sent to the REX system

**Office\_EU\_Sample\_Min\_v3.2** - Sample file with only the minimum Office data in it.

**Agent\_EU\_v3\_2** - Document Type Definition (XSD) for Agents. Used to validate the Agent XML file

**Agent \_EU\_Sample\_Full\_v3.2.xml** - Sample file for Agent with all data that could be sent to the REX system

**Agent \_EU\_Sample\_Min\_v3.2.xml** - Sample file with only the minimum Agent data in it.

**Property\_EU\_v3\_2** - Document Type Definition (XSD) for Property. Used to validate the Property XML file

**Property \_EU\_Sample\_Full\_v3.2.xml** - Sample file for Property with all data that could be sent to the REX system

**Property \_EU\_Sample\_Min\_v3.2.xml** - Sample file with only the minimum Property data in it.

**JobControl\_v3\_2.xsd** - Document Type Definition (XSD) for the Job Control file. Used to validate the Job Control XML file

**JobControl\_Sample\_v3.2.xml** - Sample file for Job Control file needed for the REX system

## City Lists

The Office AND Property listing files described below all contain references to city lists and CityID values within the city list. We use lists of geographical data internally in order to support accurate searching and reporting of office and listing locations. Offices you submit must have a valid CityID, and so must the listings you submit.

GryphTech follows this process in order to initially configure your city list:

1. We provide you with a spread sheet containing a structure that can support up to four levels of related geographical data:
   1. Region
   2. Province
   3. City
   4. LocalZone
2. If we already have geographical data for your region(s), we will provide this data in the spreadsheet. You can correct this data if you need but you cannot delete any rows of data. If you wish to have a row removed, highlight the row in a specific colour. If you need to correct the spelling or a row of data, hightlight it in a distinct colour. You can add new rows of data if you require. You fill in the structure with the names of the geographical entities within your region which include the IDs from your system. The hierarchy that must be used is as follows: local zones must be contained within a city, cities must be contained within provinces, and provinces must be contained within regions. The local terms for these four geographical levels can be translated to different terms for display on the web site if you wish.
3. You submit the completed Excel workbook back to GryphTech
4. GryphTech loads the new data into the database and assigns valid numeric keys to each record. We will also correct any data or remove any data as per your instructions.
5. GryphTech then re-exports the spreadsheet, including the keys for CityID and LocalZoneID, and sends this list back to you so you can use it to supply the correct values to us when uploading Offices and Properties. You need to let us know ahead of time if you want us to keep your own IDs in the sheet.

**Note:** City lists can not be altered in any way via XML, changes to geographical information must be coordinated with GryphTech support.

## How the XSDs are Used

The XSD specification allows for the enforcement of the structure of an XML document as well as the required fields, data types and permitted values within the document. These features help ensure that the data you send is of the highest quality and match the structure we use internally in our database systems.

**We always verify the files you send against the XSDs provided as the first step in our process**.

If a file is not valid, you will receive an error report indicating with as much detail as possible the source of the first error in the file. The entire file will not be processed. It does not matter that XML file contains 9,999 perfectly valid records and only 1 record contains 1 error.

For this reason, and to avoid delays in processing your data, it is highly recommended that you validate your files automatically using your automated process before sending them to us for processing.

## Error Logging and Reporting

Once we begin processing your file, a batch log is started to which all issues (success and failures) will be logged. At the end of the process, a copy of this batch log will be sent to one email address of your choice. We highly recommend that you review these logs.

Logs containing errors will have the word ERROR in the subject line, we suggest you review these as a minimum as ERROR indicates that one or more items submitted for processing failed.

*See Processing the XML Files chapter for further details.*

Logs containing warning will have the word WARNING in the subject line. WARNING indicates that issues existed with your data and the system took steps to continue processing the data by applying certain rules, defaults etc which do not affect the values of the data supplied by you. You should review these items to ensure the data you supply to us is of the best quality possible.

If no errors or warnings were raised during the process, you will receive an email with the word SUCCESS in the subject line. You can review these email if you wish to see the count of items successfully processed.

## What is new in Version 3.2

**New, optional node in the Property XML file**

Added the <SystemPropertyIntegratorID> node to the Property File. This is not a mandatory node and it is used by Reliance only.

**Bug Fix in the Property XML file**

We are now allowing to reference multiple property features. Due to this fix, the Property File is no longer backward compatible.

## Interface Data Model

The RE/MAX Worldwide Listing Database is made up of a number of entities. The following is a list of entities and their high level definition:

**RE/MAX Region:** is defined as a region by RE/MAX LLC. Each region is assigned a numeric ID by GryphTech. This ID does not match the IDs assigned by RE/MAX LLC.

**Integrator**: is the entity that is supplying the data on behalf of a RE/MAX region. Each integtrator is allocated a numeric identifier for each region (IntegratorID) for which they are uploading. If an integrator is uploading for one region, they will be assigned one IntegratorID. If an integrator is uploading on behalf of multiple regions, they will be assigned multiple IntegratorIDs.

**Office**: is defined as a location of a RE/MAX office. This entity is what will be used to group Agents (and their respective properties) on the website.

**Agent**: is defined as a person within an office. An Agent can either be flagged as a Sales Associate or a non-Sales Associate. Sales Associates are typically licensed agents that can sell real estate and will typically have Properties to promote. Sales Associates will automatically have a profile page to promote themselves. Non-Sales Associates are administrative office staff that can be listed on the Office Profile page but do not have a profile page.

**Property**: is defined as a Property listing which is associated with an Agent. The properties have many attributes that help describe the features of the property and listing details. This can include photos, virtual tours, etc. The status of a Property Listing must be kept current in order to determine if it should show on the website.

The following is a simple graphical representation of the data model used for the interface. Use it as a reference to understand the relationship between the Offices, Agents and Properties.

Office(s)

Agents

Properties

Agents

Properties

Properties

Properties

RE/MAX Region

Integrator

**Relationships:**

1. The Offices XML file can contain one or more offices.
2. The Agents XML file can contain many Agents. The Agents do not necessarily have to belong to the same office. You can have Agents from different Offices in the same file. Each Agent is related to an Office by the IntegratorOfficeID. The Office does not have to exist in the Offices XML file for each Agent. An Office must exist in our main database from a previous update or have been supplied in the same job in which the Agent file was submitted.
3. The Properties XML file can contain many Properties. The Properties do not necessarily have to belong to the same Agent. You can have Properties from different Agents and Offices in the same file. Each Property is related to an Agent by the IntegratorSalesAssociatetID. The Agent does not have to exist in the Agent XML file for each Property. An Agent must exist in our main database from a previous update or have been supplied in the same job in which the Property file was submitted.

## The difference between DISABLED and NOT PUBLIC AVAILABLE

To avoid further confusions it is very important to be able to make the difference between a DISABLED record and a NOT PUBLIC AVAILABLE one.

Not all the data you send to REX System will be displayed on the REMAX Refional websites. The decission if the data is public abailable or not is done automatically based on multiple predefined rules.

If the data you send to REX System can be accessed through website public interface then the data is PUBLIC AVAILABLE. If the data is not public available it is not necessary DISABLED.

### What DISABLED record means

In our base Offices, Agents and Listings tables we have a boolean field called disabled that usually has the value of false.

We do not phisically delete data. We just mark it as deleted using the disabled field.

**In all cases, if a record is disabled it is no longer public available. But, if data is no longer public available this do not mean that is disabled.**

### What PUBLIC AVAILABLE record means

If a record is PUBLIC AVAILABLE, you will be able to see it on the public website.

For instance if an office is public available you will be able to see its details in the office details page and also you can search for that office and for listings belonging to that office. If an agent is public available then you will be able to see the agent details and to search for that agent and listings belonging that agent. If a listing is public available you will be able to search for that listing and to display the details of that listing.

**In all cases, if a record is public available it is not disabled. But, if a record is not disabled it does not mean that is public available.**

### Relation between DISABLED and PUBLIC AVAILABILITY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Office record | | Agent record | | Listing record | |
| Disabled | Yes | No | Yes | No | Yes 5) | No |
| Public available | No | Yes | No | Yes | No | Yes/No 3) |
| Dependant Agents records | | | n/a | | n/a | |
| Disabled | No 1) | No 1) |
| Public available | Yes 1) | Yes 1) |
| Dependant Listings records | | | | |
| Disabled | No 2) | No 2) | No 4) | No 4) |
| Public available | No 6) | Yes/No 3) 6) | No | Yes/No 3) |

1) If not set otherwise by an Agent XML import file, disabling or enabling an office do not trigger automatic disabling/enabling of the agent belonging to the office

2) Disabling/enabling an office do not trigger automatic disabling/enabling of the listings belonging to the office. See also 5)

3) If an office, agent or listing record is not disabled it does not mean that all listings belonging to that office will be public available.

4) Disabling/enabling an agent do not trigger automatic disabling/enabling of the listings belonging to the agent. See also 5)

5) Listing records cannot be disabled through REX XML import files. Any disable of a listing must be argumented and done through the Gryphtech Support department because a disabled listing cannot be updated any longer by the integrator.

6) You can cancel (change Listing Status to Cancelled) all listings belonging to an office by sending CancelAllListings node = True in the Office XML import file but if your final target is only to have all listings belonging to that office not public available anymore disabling the office is enough. As a note: Listings with Listing Status = Cancelled are not public available.

# Offices XML XSD

The REX system manages all of the real estate office information through its Office XML XSD. The Office XML XSD is a set of rules for formatting the offices information in XML. Most likely, you will extract your existing office data from its current database and compile and format it according to the Office XSD using an application created for this purpose.

To aid you in developing this application and preparing your office data for the REX System, this chapter describes the Office XML XSD and contains explanations of its elements. Elements are described individually, according to their relationship and according to their functional category.

Each Offices XML file may contain one or more Office nodes. This allows for updating of multiple Office records through one Offices XML file.

It is sufficient (**and preferred**) to only provide Office nodes for new or updated offices (i.e. there is no need to send all offices on each upload). In the case of an updated office, the complete set of elements regarding that office should be sent (not only the elements that have changed).

## Element Overview

The Office XSD describes all the available elements for content management and display of offices on the REX system.

* See ***Office Data Dictionary sheet*** *in the* ***REX EU Data Dictionary 3.2.xlsx fil****e.*

### Attributes and their valid options

The Attributes and their valid values are included in a separate Excel sheet.

* See ***Enumerated List Values sheet*** *in the* ***REX EU Data Dictionary 3.2.xlsx fil****e.*
* *City*IDs should be populated with correct values as supplied by GryphTech Inc. Please refer to the City Lists section on page 1 for more details.

## Additional Tips

* To temporarily remove an office from appearing on the public web site, you can upload the office XML file with the Disabled node set to TRUE. The office record remains in the database, but can not be viewed in detail on the public web site. When an office gets disabled this will not cascade to the agents and properties associated to that office (See Relation between DISABLED and PUBLIC AVAILABILITY), but properties associated to that office will not be public available anymore If you need to disable Agents belonging to that office as well, you must send individual An Disable node for the agents
* Offices can not be deleted from the database using the XML specification. They can only be disabled as described above. If you wish to have an office and its agents and properties removed from the REX system, please contact GryphTech support to coordinate.
* When an office is uploaded, it will automatically appear as a search result on the web site.

# Agents XML XSD

The REX system also manages all of the real estate agent information through the Agents XML XSD. The Agents XML XSD is a set of rules for formatting the agent’s information in XML. Most likely, you will extract your existing agent data from the current database and compile and format it according to the XSD using an application created for this purpose.

To aid you in developing this application and preparing the agent data for the REX System, this chapter describes the Agents XML XSD and contains explanations of its elements. Elements are described individually, according to their relationship and according to their functional category.

Each Agents XML file may contain one or more Agent nodes. This allows for updating of multiple Agent records through one Agents XML file. The Agents don’t necessarily need to be from the same office to be in the same file since the IntegratorOfficeID will link the Agent to the Office database.

It is sufficient (**and preferred**) to only provide Agent nodes for new or updated agents. In the case of an updated agent, the complete set of elements regarding that agent should be sent.

## Element Overview

The Agents XSD describes all the available elements for content management and display of agents on the REX System.

* See

***Associate Data Dictionary*** *sheet in the* ***REX EU Data Dictionary 3.2.xlsx*** *file*

### Attributes and their valid options

The Attributes and their valid values are included in the same spreadsheet.

* See

***Enumerated List Values*** *sheet in the* ***REX EU Data Dictionary 3.2.xlsx*** *file.*

## Agent transfer

To transfer an an agent from an office to another office, use the AgentTransfer nodes.

<UploadXML …

<SalesAssociates>

<SalesAssociate>

…

<IntegratorSalesAssociateID>existing agent id</IntegratorSalesAssociateID>

<IntegratorOfficeID>old office id</IntegratorOfficeID>

…

<AgentTransfer>

<TransferToOfficeID>new office id</TransferToOfficeID>

<IncludeListingsInTransfer>True/False</IncludeListingsInTransfer>

</AgentTransfer>

When doing a transfer, the IntegratorOfficeID must be the current office ID in our system. The new office will be provided in the TransferOfficeID node.

You must tell us whether or not you wish to move the listings with the agent.

* If the IncludeListingsInTransfer node is set to False and the agent still has active listings associated to her/him, the transfer will not take place. You must first transfer the listings using Property XML file and ensure that no listings are left with the agent before you send the transfer.
* If the IncludeListingsInTransfer node is set to True, all active listings will be transferred automatically with the agent.

By active listings we understand only the listings with one of the following listing status: Active, On Option, Proposal, Prospective, Sale Agreed, Partially Rented.

## Additional Tips

* + - For a successful agent import please make sure that the agent’s office was imported before or it is imported in the same job with the current agent file.
    - To temporarily remove an agent from appearing on the public web site, you can upload the agent XML file with the Disabled node set to TRUE. The agent record remains in the database, but can not be viewed in details on the public web site. When an agents is disabled all its associated properties do not get disabled but they are not public available anymore (See Relation between DISABLED and PUBLIC AVAILABILITY).
    - Agents can not be deleted from the database using the XML specification. They can only be disabled as stated above. If you wish to have an agent and properties removed from the REX system, please contact GryphTech support to coordinate.

# Properties XML XSD

The REX system also manages all of the property information through the Properties XML XSD. The Properties XML XSD is a set of rules for formatting the property information in XML. Most likely, you will extract your existing property data from the current database and compile and format it according to the XSD using an application created for this purpose.

To aid you in developing this application and preparing the property data for the REX System, this chapter describes the Properties XML XSD with all elements and attributes explained. Elements and attributes are described individually, according to their relationship and according to their functional category.

Each Properties XML file may contain one or more Property nodes. This allows for updating of multiple Property records through one Properties XML file. The Properties don’t necessarily need to be from the same office or agent to be in the same file since the IntegratorAgentID and IntegratorOfficeID will link the Property to the Agent and the Office database.

It is sufficient (**and preferred**) to only provide Property nodes for new or updated listings. In the case of an updated property, the complete set of elements regarding that property should be sent.

*Note: Please note that the term “Property” and “Listing” is used interchangeably throughout this specification.*

## Elements Overview

The Property XML XSD describes all the available elements for content management and display.

* See

Property Data Dictionary sheet in the REX EU Data Dictionary 3.2.xlsx file.

5.1.1 Attributes and their valid options

The Attributes and their valid values are included in a separate Excel sheet in the same document. An Access database will be provided for the city list.

* See a

***Enumerated List Values*** *sheet in the* ***REX EU Data Dictionary 3.2.xlsx*** *file.*

* CityIDs should be populated with correct values as supplied by GryphTech Inc. Please refer to the City Lists section on page 1 for more details.

## Additional Tips

* To remove a listing from appearing on the public web site you can upload a change of ListingStatus and set it to “Cancel”. The listing record remains in the database, but can not be viewed in detail on the public web site
* When a listing is sold, set the ListingStatus to sold. It will continue to display for 30 days on the web site but will be labeled “Sold”. It will automatically cease to be displayed after this.
* If you send the HidePricePublic as True, the price will not show on the web site. It will be used as a guide when the consumer does a property search however. Instead of the price, the string “Upon Request” will be displayed.
* The PriceType node allows you to display a qualifier above the price of the property on the search result screen as well as the property description screen.

# XML File Requirements

The XML channel requires specific file formats for the files uploaded to the XML server. This chapter describes the compulsory formats for formatting RE/MAX Worldwide Listing Database XML information files correctly.

## Root Tag Format

For all XML syntax to be valid, the root tag must follow these syntactic requirements:

* First line of XML file must be:

**<?xml version ="1.0" encoding="UTF-8" ?>**

* The root element must be:

<UploadXML xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://www.gryphtech.com/REX/XSD/[CorrectXSDNameHere].xsd">

**Please see each sample file for the correct root element syntax!**

* There must be at least one child of the root.

## Version Node

The version node is a new requirement beginning in Version 2.0. Each property file you upload that will use the XSD Property\_v3\_2.xsd must include the version node. The top of the document will look like this:

<UploadXML>

<Version Version="3.2"/>

## Data Type Formatting

For the four data types used in the XML there are specific formatting rules. These rules are explained below.

* Percent format:
* 10.1 = 10.1%
* Not .101
* Date format:
* YYYY-MM-DD
* Time format:
* 24 Hour clock
* HH:MM:SS
* Currency format:
* No grouping separators (for example commas) are allowed.

## Encoding

All XML files have to be UTF-8 encoded.

# Uploading the XML data

Once you have formatted your information, exported it to a data file(s) and validated against the XSD, you will upload the data file(s) via FTP. In this section you will learn how to perform this process and ensure the safe and valid transfer of your information.

## Where To Upload

You will receive a user-id and password for FTPing XML data to the REX System for both the TEST and PRODUCTION servers.

The URL for both the TEST and PRODUCTION environment is the same:

[ftp.gryphtech.com](ftp://ftp.gryphtech.com)

When you are originally setup, your account will point to the TEST environment. When you are ready to go live, notify GryphTech and your account will be modified to point to our live environment.

**The XML files must be uploaded to the XMLData folder. The JOB file must be the very last file you transfer, after all your XML files have been transferred and all of your images have been transferred. The JOB file also goes to the XMLData folder.**

**The image files will be uploaded to the XMLImage folder.**

## The IntegratorID

Every entity (Aggregator, Office, 3rd Party Vendor, etc.) that wishes to upload data into the RE/MAX Worldwide Listing Database system must be assigned an IntegratorID. The IntegratorID identifies the source of the data and maintains any relationships of the source of the data in the database. It also help for data validation as all validations are done in the scope of the IntegratorID .

The IntegratorID is used in the user-id and password for FTPing and in the names of the XML and image files.

You will be assigned an IntegratorID to start the testing phase of the upload process.

## File Name

Filenames for XML files can contain up to 255 characters, including spaces, but they may not contain any of the following characters: \ / : \* ? " **<** **>** |

Please use the following date and time formats: date: ddmmyyyy  
 time: hhmmss

The name of the **Office file** must be: **O\_IntegratorID \_Date\_Time.xml**

example: O\_1016\_29052001\_233415.xml

The name of the **Agent file** must be: **A\_ IntegratorID \_Date\_Time.xml**

example: A\_1016\_29052001\_233415.xml

The name of the **Properties file** must be: **P\_IntegratorID\_Date\_Time.xml**

example: P\_1016\_29052001\_233415.xml

## Processing the XML Files

Even though the XML files have been successfully uploaded, due to the nature of FTP and the uncertainty of when an upload has completed, it is necessary for the end user (or automated process) to inform the application that will process the files once the upload is complete.

This is accomplished by uploading a small job control file to the server as the last file to the same location you have upload the other data files for Office, Agent and Properties. The file must use the following naming convention: JOB\_ IntegratorID\_DDMMYYYY\_HHMMSS.xml

example: JOB\_1016\_16122005\_120742.xml

The file format is as shown in the sample file JobControl\_Sample\_3.2.xml, included in this package and is also described below.

**<JobControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://www.gryphtech.com/REX/XSD/JobControl\_v3\_2.xsd">**

**<IntegratorID>2001</IntegratorID>**

**<OfficeFile>O\_2001\_05092005\_154043.XML</OfficeFile>**

**<AgentFile>A\_2001\_24102005\_100815.xml</AgentFile>**

**<PropertyFile>P\_2001\_21102005\_170438.xml</PropertyFile>**

**</JobControl>**

As you can see, the file contains a list of other files that you have already uploaded and which should be processed together as a batch. Each job control file must contain the IntegratorID node, and have a maximum of one node of each type shown, but does not have to contain all the nodes. IntegratorID node is mandatory. For example, if you have uploaded only a property file, your job control file would like like this:

**<JobControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://www.gryphtech.com/REX/XSD/JobControl\_v3\_2.xsd">**

**<IntegratorID>2001</IntegratorID>**

**<PropertyFile>P\_2001\_21102005\_170438.xml</PropertyFile>**

**</JobControl>**

You may not have multiple instances of any node. For example, the following file is NOT valid:

**<JobControl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:noNamespaceSchemaLocation="http://www.gryphtech.com/REX/XSD/JobControl\_v3\_2.xsd">**

**<IntegratorID>2001</IntegratorID>**

**<OfficeFile>O\_2001\_05092005\_154043.XML</OfficeFile>**

**<OfficeFile>O\_2001\_15092005\_154043.XML</OfficeFile>**

**<PropertyFile>P\_2001\_21102005\_170438.xml</PropertyFile>**

**<PropertyFile>P\_2001\_31102005\_170438.xml</PropertyFile>**

**<PropertyFile>P\_2001\_41102005\_170438.xml</PropertyFile>**

**</JobControl>**

The file will load, but only the first instance of each file type will be detected and processed.

After you have uploaded the file (using the same FTP credentials and folder as for the other XML files), the system will detect it automatically and will place your job in the job queue for processing.

Once the JOB XML file was processed, a processing log will be emailed to the contact person for that integrator mentioning if was any error processing the JOB file or if the JOB file was processed and added to the job queue. A successful email will show like this:

Subject: <servername> : RE/MAX REX Job for Integrator <IntegratorID> | <JOB file name> - SUCCESS

Message body:

REX JOB file: <JOB file name>  
  
Following files will be processed:  
- <Office XML file name>  
- <Agent XML file name>  
- <Property XML file name>   
  
-------------  
  
Started: <datetime>  
Ended: <datetime>  
Duration: # seconds  
Total items: #

This message will acknowledge only that the JOB file was succesfully added to the queue and the list of XML files that are part of this job.

The order of execution will be always: Office file, Agent file, Property file.

Depending how many files are specified in the JOB file, the Integrator will receive at the end of each process an email indicating if the import was successful or not. If import had errors or warnings, a log file will be attached to the email.

Example:

Office file:

Subject: <servername> : RE/MAX REX Offices XML Upload Log for Integrator <IntegratorID> | <Office XML file name> - [SUCCESS] | [ERRORS OCCURRED] | [WARNINGS OCCURED]

Message body:

Started: Wednesday, May 22, 2013 5:42:27 AM  
Ended: Wednesday, May 22, 2013 5:42:28 AM  
Duration: # seconds  
Total items: #  
[! Errors occurred on # item(s)]  
[? Warnings occurred on # item(s)]

Agent file:

Subject: <servername> : RE/MAX REX Agents XML Upload Log for Integrator <IntegratorID> | <Agent XML file name> - [SUCCESS] | [ERRORS OCCURRED] | [WARNINGS OCCURED]

Message body:

Started: Wednesday, May 22, 2013 5:42:27 AM  
Ended: Wednesday, May 22, 2013 5:42:28 AM  
Duration: # seconds  
Total items: #  
[! Errors occurred on # item(s)]  
[? Warnings occurred on # item(s)]

Property file:

Subject: <servername> : RE/MAX REX Properties XML Upload Log for Integrator <IntegratorID> | <Property XML file name> - [SUCCESS] | [ERRORS OCCURRED] | [WARNINGS OCCURED]

Message body:

Started: <datetime>  
Ended: <datetime>  
Duration: # seconds  
Total items: #  
[! Errors occurred on # item(s)]  
[? Warnings occurred on # item(s)]

# XML Samples

This chapter contains samples of the XML XSDs. These samples do not contain real data and should be used as an example only.

## Office XML Sample

* See accompanying file called Office\_EU\_Sample\_Full\_v3.2.xml for a complete XML document with all possible nodes
* See accompanying file called Office\_EU\_Sample\_Min\_v3.2.xml for an example of an XML file with the minimum number of nodes

## Agent XML Sample

* See accompanying file called Agent\_EU\_Sample\_Full\_v3.2.xml for a complete XML document with all possible nodes
* See accompanying file called Agent\_EU\_Sample\_Min\_v3.2.xml for an example of an XML file with the minimum number of nodes

## Property XML Sample

* See accompanying file called Property\_EU\_Sample\_Full\_v3.2.xml for a complete XML document with all possible nodes
* See accompanying file called Property \_EU\_Sample\_Min\_v3.2.xml for an example of an XML file with the minimum number of nodes

# Validating The XML Data on a Regional Website

Once the XML upload is completed, you are responsible to confirming that the data submitted is accurately reflected on the public facing websites. This will require navigating to a regional website and confirming the Office, Agent and Property Data is correct.

## Office

The Office and Agent search link is located in the footer of all regional RE/MAX websites. To confirm accurate office count, first navigate to the Agent and Office search as shown in figure 1.



*Figure 1*

Using the search form shown in Figure 2, select your region and leave all other fields blank. Click the Search office button to see a list of all the offices in your region.

Validate the results against the total number of office indicated in your XML file. If the numbers to not match please refer to section 2 - Offices XML XSD to confirm valid formatting.





*Figure 2*

In the example above, searching for offices in the region of “Scotland” returns 30 offices. The XML file should contain the same number of active offices.

## Agent

As with the previous section, begin with the office and agent search – selecting your region and leaving all other fields blank.

Click search and validate the results against the total number of agents in your region, as indicated in your XML file. If the numbers to not match please refer to section 3 - Agent XML XSD to confirm valid formatting.



Figure 3

In the example above, searching for agents in the region of “Scotland” returns 74 agents. The XML file should contain the same number of active agents.

## Property (Search Results)

The first step in validating the XML property upload is to confirm the total number of publically available listings uploaded matches the totals on a regional website. On the home page of a regional website, select your region and leave all other fields blank.



Figure 4

Click the search button to move to the next screen. The total number of properties will be displayed at the top of the listing results screen.

\

Figure 5

To determine the total number of listings add the totals of the four searches below.

1. For Sale Residential
2. For Sale Commercial
3. For Rent/Lease Residential
4. For Rent/Lease Commercial

Adding the total number of listings for each search will provide you with the number of publically available listings. If the numbers to not match please refer to section 4 - Property XML XSD to confirm valid formatting.

## Property (Listing Full)

The final step in validating the XML property upload is to confirm the fields in the listing full view match the publically available fields in your XML feed. To do this you will need to review the listing full page for both Residential and Commercial property types.

Use the MLS ID for a complete Residential Listing of each macro property type to pull up a listing full view as seen in figure 6 below.



Figure 6

Once in the listing full view, confirm the presence and values for each of the fields against the XML. Repeat this process for all macro commercial property types. Ensure that the listings you select are complete, so that the presence of all fields can be validated.

If there are irregularities in the data, please refer to section 4 - Property XML XSD to confirm valid formatting.

# Images for Offices, Agents and Properties

This chapter describes how the Office, Agent and Property image files are added to the REX system.

The image upload and update process is independent of the XML processing, meaning that the rest of data will be imported into the database no matter if the image(s) will not be processed due to some errors. The only requirement is that the data must exist in the database for the images being uploaded.

Image files are related to their office, agent or property data using their filenames.

If an image already exists in the REX system and you wish to update it, then you just supply the new image in the upload and a reference to it in the Office, Agent or Property XML file.

If an image already exists in the REX system and you wish to just remove it, then you must supply an <ImageRemoval> node in the XML.

## Offices & Agent images

The naming convention which you must follow in order to successfully link images to your offices and agents is:

Offices**: O\_IntegratorID\_OfficeID.jpg**

Agents**: A\_IntegratorID \_AgentID.jpg**

* the OfficeID/AgentID is the ID of the Office/Agent on your system, not the ID used in the REX System
* the file format should be JPG
* image dimensions should be 500 pixels wide by 375 pixels high. **Images will be automatically resampled if they exceed these limits, aspect ratios will be maintained.**

Following processing, the images will be renamed within the REX using a format which ensures all listing images are unique in the REX system.

Office and Agent images can be deleted from the system by simply uploading the value “TRUE” in the RemoveImage node.

## Listing images

The naming convention which you must follow in order to successfully link images to your listings is:

**L\_IntegratorID\_ListingID\_SequenceNumber.jpg**

* the ListingID is the Listing ID of the listing on your system, not the Listing ID used in REX
* the SequenceNumber is a number between 1 and 10 inclusive (no zeros)
* the file format should be JPG

Following processing, the images will be renamed within the REX system using a format which ensures all listing images are unique.

Listing Images can be deleted from the system by specifying the correct values in the ImageRemoval node. Please see the Property section of Data Dictionary file for details on that structure.

Please make sure you uploaded all images before you upload the JOB file. If you Property XML file has specified a list of images for a property record then REX is first purging the database image table for that property and then add the new images. In case you did not upload all the images you could end up with none or less images for that property.

## Uploading the Images

Uploading the images is accomplished through FTP.

You will be provided with a user-id and password which is the same as the XML upload. The server where to upload images is the same as the XML. **All the images must be uploaded to the XMLImages folder.**

You can upload the image files to **ftp.gryphtech.com** using an FTP client or an automated process.

## Processing the XML and Image Files

Image files will be processed as specified in the Property XML file Images section. The files names used in that section must correspond to the file names used to upload the image files to the FTP location. The images must be uploaded before submitting the Job control file.

**Important notes**

The order in which things should be uploaded and jobs submitted is:

1. Upload all data for Offices, Agents and Properties
2. Upload all images for Offices, Agents and Properties
3. Upload the Job control file

# APPENDIX A: XML SYNTAX HELP

Formatting an XML document is similar to formatting an HTML document. This section contains some the most important guidelines to follow when formatting the XML information files or any other XML information file.

### Remember The XML Declaration

The XML declaration is inserted at the beginning of the file to alert the parsing COM that the document contains XML tags. The declaration is formatted as follows:

**<?xml version ="1.0" encoding="UTF-8" ?>**

### Do What The XSD Instructs

For a valid XML file (one that is checked against a XSD), know which tags are part of the XSD and use them appropriately. Know the allowable values are for each tag. Follow the XSD rules. The XML document will validate against the specified XSD.

### Watch Your Capitalization

XML is case-sensitive. **<**P**>** is not valid in the same manner as **<**p**>**. A consistent definition of element names is required.

### Watch Your Sequence

XML is sequence sensitive. The order of the tags in the XML document must match the XSD.

### Quote Attribute Values

HTML allows variation when enclosing attribute values in quotes. In XML enclose all attribute values in quotes:

**<**NAME dob="1650"**>**Johann Sebastian Bach**<**/NAME**>**

### Close All Tags

XML requires that all tags are closed. For example, paragraphs must have corresponding start and end tags.

### Close Empty Tags

HTML allows empty tags, such as **<**hr**>** or **<**img**>**. XML forces all empty tags to close. Close tags by adding a separate close tag (**<**/tagname**>**) or by combining the open and close tags into one tag. You create the open/close tag by adding a slash, /, to the end of the tag: **<**tagname /**>**

### How Do I Validate XML Against The XSD?

You need to use an XML tool that will allow you to validate the XML against the appropriate XSD. There are a lot of free or paid tools available on the Internet. Use the one that fits you best.

### Encoding Special Characters

The XML specification includes certain “system” characters. If you wish to use these characters as part of your XML data, they must be properly encoded as you output your data file. Please see the table below for a table of the most common characters that should be encoded.

|  |  |
| --- | --- |
| **Character Found in Data** | **Replace with Encoded Value** |
| < | &lt; |
| > | &gt; |
| & | &amp; |
| “ | &quot; |
| € | &euro; |

# APPENDIX B: COMMON TERMS

Throughout this document there may be some references to terms that are new or unexplained. Please review the following list of terms and their meanings. This will assist in fully understanding the concepts and explanations provided through the document.

**XSD**: (XML Schema **Definition**) is an XML-based language used to describe and control XML document contents.

**XML**: Short for **Ex**tensible **M**arkup **L**anguage*,* a specification developed by the [W3C](http://www.webopedia.com/TERM/X/W3C.html). [XML](http://www.webopedia.com/TERM/X/XML.html##) is a pared-down version of [SGML](http://www.webopedia.com/TERM/X/SGML.html), designed especially for [Web](http://www.webopedia.com/TERM/X/World_Wide_Web.html) documents. It allows designers to create their own customized [tags](http://www.webopedia.com/TERM/X/tag.html), enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.

**NODE(S):** A node is a logical grouping of elements, attributes, text or other items which together make a single ‘object’ such as a Property, Agent or Office.

**ELEMENT(S):** [XML document](http://www.w3.org/TR/REC-xml/#dt-xml-doc#dt-xml-doc) contains one or more **elements**, the boundaries of which are either delimited by [start-tags](http://www.w3.org/TR/REC-xml/#dt-stag#dt-stag) and [end-tags](http://www.w3.org/TR/REC-xml/#dt-etag#dt-etag), or, for [empty](http://www.w3.org/TR/REC-xml/#dt-empty#dt-empty) elements, by an [empty-element tag](http://www.w3.org/TR/REC-xml/#dt-eetag#dt-eetag). Each element has a type, identified by name, sometimes called its "generic identifier" (GI), and MAY have a set of attribute specifications.

**ATTRIBUTE(S):** [Attributes](http://www.w3.org/TR/REC-xml/#dt-attr#dt-attr) are used to associate name-value pairs with [elements](http://www.w3.org/TR/REC-xml/#dt-element#dt-element). Attribute specifications MUST NOT appear outside of [start-tags](http://www.w3.org/TR/REC-xml/#dt-stag#dt-stag) and [empty-element tags](http://www.w3.org/TR/REC-xml/#dt-eetag#dt-eetag)

**TEST:** GryphTech internal environment TESTING server. From time to time this server may be used for XML upload and testing purposes.

**PRODUCTION:** GryphTech LIVE Internet server environment.

# FAQ

Before you start asking what is going wrong make sure you monitor, read and understand all the emails received from REX System. We try to send you back as much usefull information as possible regarding the file processing and the errors occurred.

## I uploaded a property, with no errors, but I cannot see it on the public web site. What is wrong?

There are a series of factors that can make this record publicly unavailable. Make sure your property meets following rules simultaneously:

* Listing Status is Active or, if Listing Status is Sold, that the sold date is not more than 30 days ago.
* Listing Price is greater than zero
* Property belong to an Agent that is not disabled
* Property belong to an Office that is not disabled
* ContractType="2" is selected, please use ContractType="1" which stands for ‘Exclusive’

## Cannot upload an Agent. The error says “A IntegratorOfficeID with a value of "#####" was found, which isn't valid for IntegratorID #####”.

Make sure you succesffuly uploaded the office before you attempt uploading the agent. You can upload the office in a previous job or in the current job. Office file will be always processed before Agent file.

## Cannot upload a Property. The error says “A IntegratorSalesAssociateID with a value of "#####" was found, which isn't valid for IntegratorID #####”

Make sure you succesffuly uploaded the agent before you attempt uploading the listing. You can upload the agent in a previous job or in the current job. Agent file will be always processed before Property file. See also 11.2

## I cannot see all or some images

Make sure you uploaded the images before you uploaded the JOB file and also make sure that all images were successfully processed (check email logs)

## I uploaded the XML and image files but I receive no email about the process

First make sure you can receive emails on the contact email address you provided and that our emails do not go to SPAM folder.

Make sure you uploaded the JOB file to start the process\ and make sure you received a successful email log about it.

If no errors regarding the job file then your XML files were queued to be processed. You might not be the only integrator using REX system and there are other files to be processed before yours. As soon as any of your files finished to be processed you will receive an email log saying if the process was successful or if errors and warnings occurred.

Please allow 24 hours for your files to be processed. If they are not processed in 24 hours, please contact Gryphtech Support department.

## Corrupted image file. Transformation failed

This means that the file uploaded by you to be processed was corrupted. Even the file exist on the drive its content it is not readable by the application. Most common case: the file was uploaded like that by the integrator. Other case could be a broken/unreliable FTP transfer.

## We have uploaded a full/base file yesterday. Why do we still see on the pulic web site records that are not in our full/base file?

REX System process only the information you send and nothing more. It does not make assumptions. If you decide that some records should not be public available anymore you have to update these records by uploading appropiate information: disabled = true for Offices and Agents and Cancelled or Expired listing status for Properties.

Also if one day you send an information about an entity using the full list of elements and then, the next day, you send an updated information about the same entity using the minimum list of elements only the latter entity information will remain in the database.

# REXAPI User Guide

The REXAPI is a web based application to retrieve information on publicly visible Offices, Agents, or Listings for a specific Region ID and data provider Integrator ID.

Information is returned in JSON formatted text that can be copied from a web browser or requested by another application to confirm data in the provider’s environment. The JSON Response is not formatted with a new line after each field or record.

A list of the publicly available Offices, Agents or Listings can be requested by formatted URL to the application, including a valid Data Provider Integrator ID and associated Region ID.

## FORMAT For Europe:

http://rexapi.iconnect.remax.com/RexAPI/Offices/<IntegratorID>/<RegionID>  
http://rexapi.iconnect.remax.com/RexAPI/Agents/<IntegratorID>/<RegionID>  
http://rexapi.iconnect.remax.com/RexAPI/Listings/<IntegratorID>/<RegionID>

## FORMAT For RE/MAX Global:

http://rexapi.global.remax.com/RexAPI/Offices/<IntegratorID>/<RegionID>  
http://rexapi.global.remax.com/RexAPI/Agents/<IntegratorID>/<RegionID>  
http://rexapi.global.remax.com/RexAPI/Listings/<IntegratorID>/<RegionID>

## API Error Messages:

The application will validate the Integrator ID and Region ID provided, and may return an error message if the values are incorrect. There are four error messages that may be returned:

|  |  |  |
| --- | --- | --- |
| Integrator | Region | Message |
| 2 | 3 | Invalid IntegratorID / RegionID combination *(This Integrator does not provide data for this Region)* |
| 2 | 987745 | Invalid RegionID *(Region ID does not exist)* |
| 947857 | 3 | Invalid IntegratorID *(Integrator ID does not exist)* |
| 948765 | 987422 | Invalid IntegratorID and RegionID *(Neither ID are valid for any Data Provider, or Region)* |
| 2 | AB | Web page Error 404  *(Both values should be numbers only)* |

## JSON Format:

RexApiResponse [Start of JSON Response] :  
 P\_IntegratorID [Reply of IntegratorID sent]:  
 RegionID [Reply of RegionID sent]:  
 RecordCount [Number of Records in reply]:  
 RexItems: [List of Items Returned]  
 \*\*RexItems can be Office, Agent, or Listing\*\*

Office > OfficeID [GT OfficeID]:  
 OfficeIntegratorID [Provider Office Integration ID]:  
 InternationalOfficeID [REMAX International Office ID] :

Agent > AgentID [GT AgentID]:  
 AgentIntegratorID [Provider Agent Integration ID]:  
 InternationalAgentID [REMAX International Agent ID]:

Listing> MLSID [ MLS ID]:  
 IntergratorPropertyID [Provider Listing ID]:

## RexApiResponse Example:

{"RexApiResponse":{"P\_IntegratorID":2,"RegionID":2,"RecordCount":609,"RexItems":[{"AgentID":"20011022","AgentIntegratorID":"2001","InternationalAgentID":"73131973"},{"AgentID":"25261044","AgentIntegratorID":"2001","InternationalAgentID":"70869213"} ]}}

(Formatted for easier reading)

{"RexApiResponse":

{"P\_IntegratorID":2,

"RegionID":2,

"RecordCount":609,

"RexItems":[

{"AgentID":"20011022","AgentIntegratorID":"2001","InternationalAgentID":"73131973"},

{"AgentID":"25261044","AgentIntegratorID":"2001","InternationalAgentID":"70869213"}

]

}