

Tasks to Setup and Synchronize a Distributed Database using the HIS RETS Server and RETS Connector.

Purpose:

This document should act as a guide to Best Practices for the efficient setup and synchronization of distributed databases based upon the HIS REsearch database and RETS server.

RETS Connector is being used for demonstration purposes, you may use any RETS compliant client to interact with the HIS RETS server. The main purpose of this documentation is to describe the processing logic and identify the important RETS date related fields.

Important Fields:

RETS Resource/Class	Field Name	Purpose
Property/Property	changed	Listing has been added or updated.
Property/Property	media_changed	Photo(s) on listing has been added or changed.

Initial Distributed Database Setup:

Task Name Distributed Database Setup

Description: (optional) This task will do the first pass to download all of the property (listings) records and photos.

Server Name HISRETS Edit

Login URL http://rets.hawaiiinformation.com:6103/rets/login

User Name greggpetch

Password *****

Field Names System

Results Folder C:\Documents and Settings\greg\Desktop\RETS results

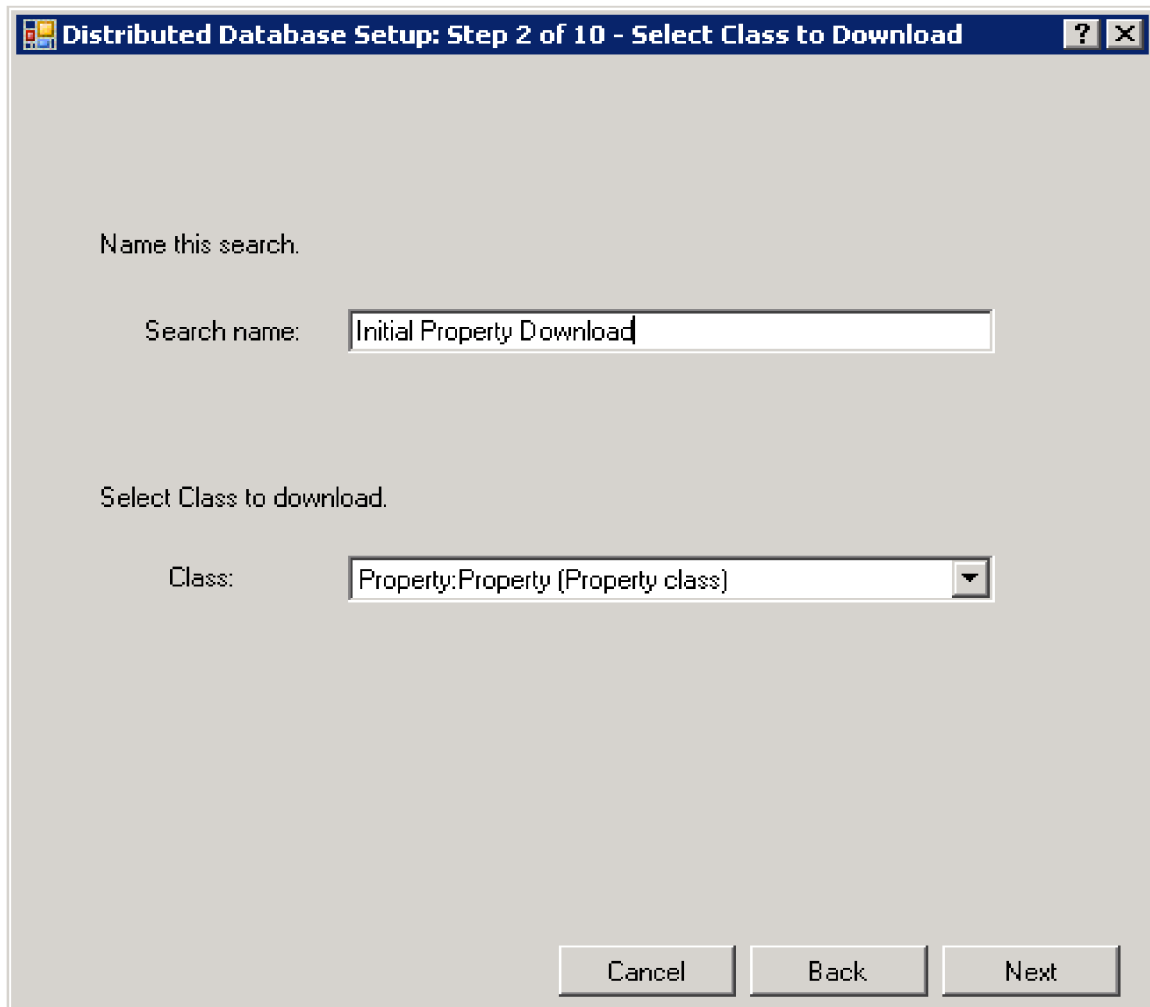
The Next step will connect to the selected RETS service. Ensure there is a connection to the Internet.

Cancel Next

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The steps for the initial distributed database setup will include downloading all property (listing) records and photos in a single pass.

The examples shown in this document are for the RETS Resource *Property*. The logic for creating a distributed database for other RETS Resources is the same as shown here with the exception of Photos. Only the RETS Resource *Property* contains links to photos.



The screenshot shows a Windows-style dialog box titled "Distributed Database Setup: Step 2 of 10 - Select Class to Download". The dialog has a light gray background and a dark blue title bar with a question mark icon and a close button. The main content area contains the following elements:

- The text "Name this search." is positioned above a text input field.
- The text "Search name:" is to the left of the text input field, which contains the text "Initial Property Download".
- The text "Select Class to download." is positioned above a dropdown menu.
- The text "Class:" is to the left of the dropdown menu, which displays "Property:Property (Property class)".
- At the bottom of the dialog, there are three buttons: "Cancel", "Back", and "Next", arranged horizontally from left to right.

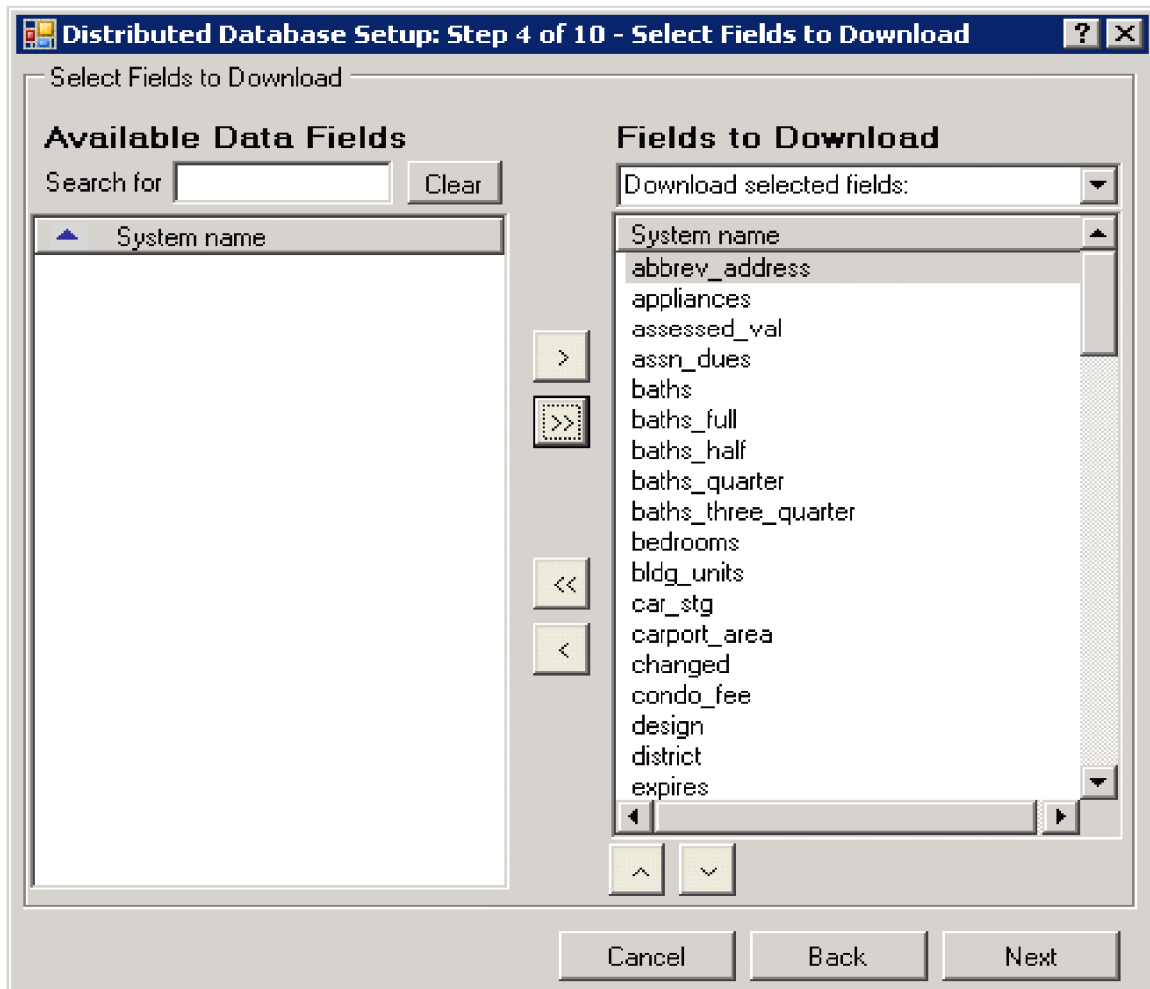
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Select all property (listing) records by setting the search criteria to “*ListingID* >= 0”. If you would like to break the initial download into smaller files you can add additional criteria such as a listing date range, status, etc.

The screenshot shows a Windows-style dialog box titled "Distributed Database Setup: Step 3 of 10 - Enter Search Criteria". The dialog is divided into two main sections. The top section, "Select Search Criteria", contains a "Search for" text box with a "Clear" button to its right. Below this is a list box containing the following items: "System name", "land_area", "land_tenure", "latitude", "listing_status", "ListingID", "living_area", "longitude", "lot_descr", "lot_no", and "media_changed". To the right of the list box are three input fields: "Field:" with "ListingID" entered, "Operation:" with a dropdown menu showing "Is greater or equal to", and "Value:" with "0" entered. Below these fields are "Remove" and "Update" buttons. The bottom section, "Search Criteria Summary", contains a text box with the text "ListingID is greater or equal to 0". At the very bottom of the dialog are three buttons: "Cancel", "Back", and "Next".

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Specify all of the available RETS fields to download that you require to populate your database.



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Select the RETS download format you want to use. HIS RETS supports the XML Compact and Compact Decoded formats. Using RETS Connector also allows you to select a delimited record format.

In the Initial Download photos are downloaded for all of the property (listing) records from the initial select statement. The method for downloading photos for keeping the distributed database synchronized will change after the initial download.

Distributed Database Setup: Step 5 of 10 - Data Format Options

Data Format

XML
 Standard
 Compact
 Compact Decoded

Delimited:
 Decoded
 Include headers

 Include count

Data Selection

Maximum Records Returned:

Use Index to overcome server's limits

Record Offset:

Output File

...

Overwrite
 Use unique filename
(Appends an incremental number to the end of filename)

Cancel Back Next

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The final step is to run the initial download.

Distributed Database Setup: Step 9 of 10 - Scheduled Download Settings

Download Scheduling

Enable Scheduling Last run (client) Never
Successfull (server)

Schedule Task: Day: Start Time:

daily (each) 05:40 AM

Download Options

Full Download

Incremental download since last loaded modification on: Never

Incremental download since: June 08, 2011 at 05:46AM

Cancel Back Next

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Step 1. Update Property Listings in the Distributed Database.

After the Distributed Database has been created there is a two step process to keep the Property Listings and Photos up to date. Step 1 is to update the Property Listing information based upon the RETS Field *changed*.

The screenshot shows the 'Distributed Database Listings' configuration window. The 'Task Information' section includes the following details:

- Task Name:** Distributed Database Listings
- Description:** This task will update the listings in the distributed database based upon the last run date. The changed field will be used to identify new and updated listings.
- Server Name:** HISRETS
- Login URL:** http://rets.hawaiiinformation.com:6103/rets/login
- User Name:** greggpetch
- RETS Version:** RETS/1.7.2
- Field Names Used:** System
- Results Folder:** C:\Documents and Settings\greg\Desktop\RETS
- Last run (client):** Never
- Successful (server):** (checked)

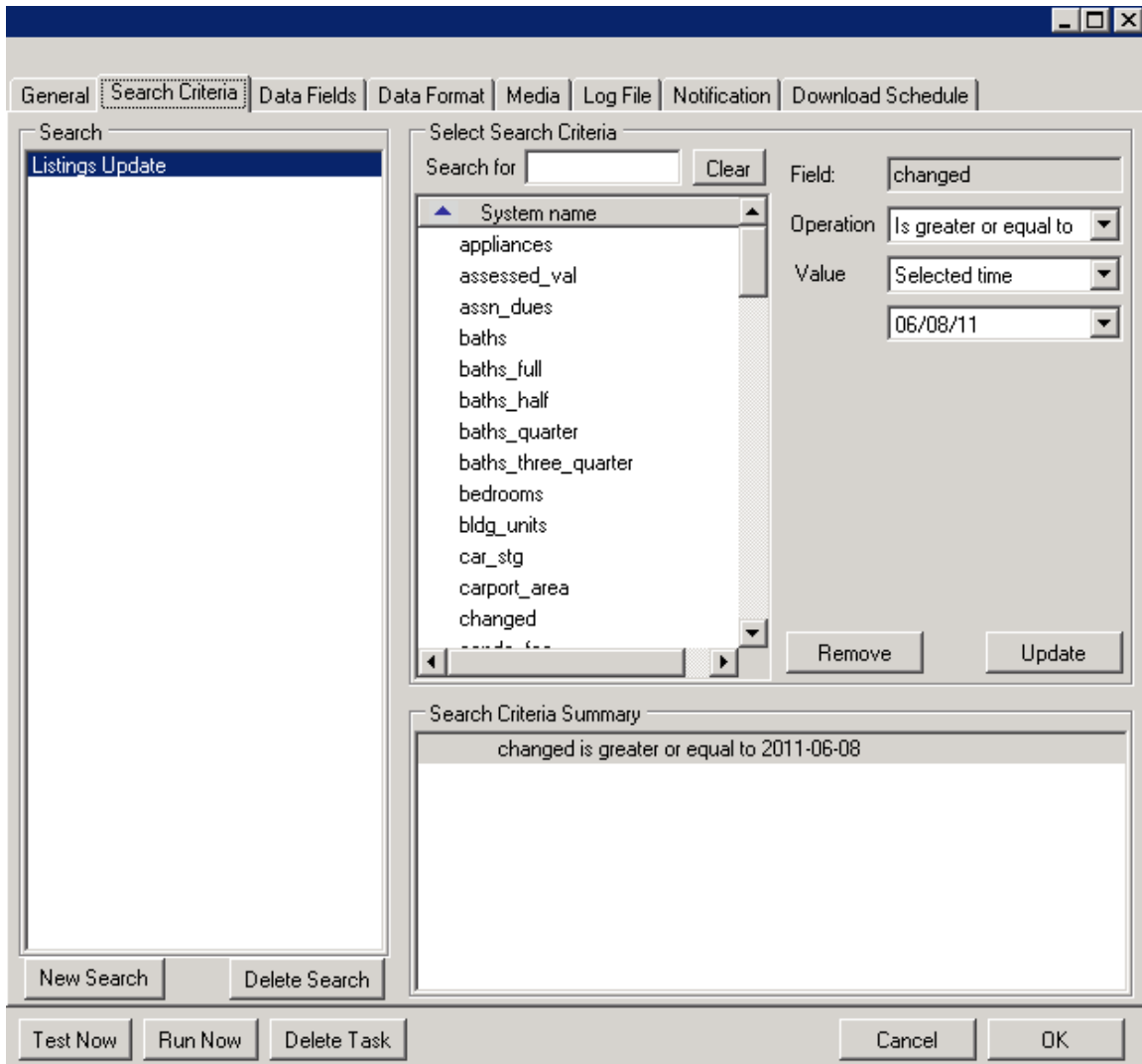
The 'Search Information' section includes the following details:

- Search Name:** Listings Update
- Incremental modification field:** changed (highlighted with a red box)
- HTTP Timeout (seconds):** 60
- Resource:** Property (Property resource)
- Class:** Property (Property class)

Buttons at the bottom include: New Search, Delete Search, Test Now, Run Now, Delete Task, Cancel, and OK.

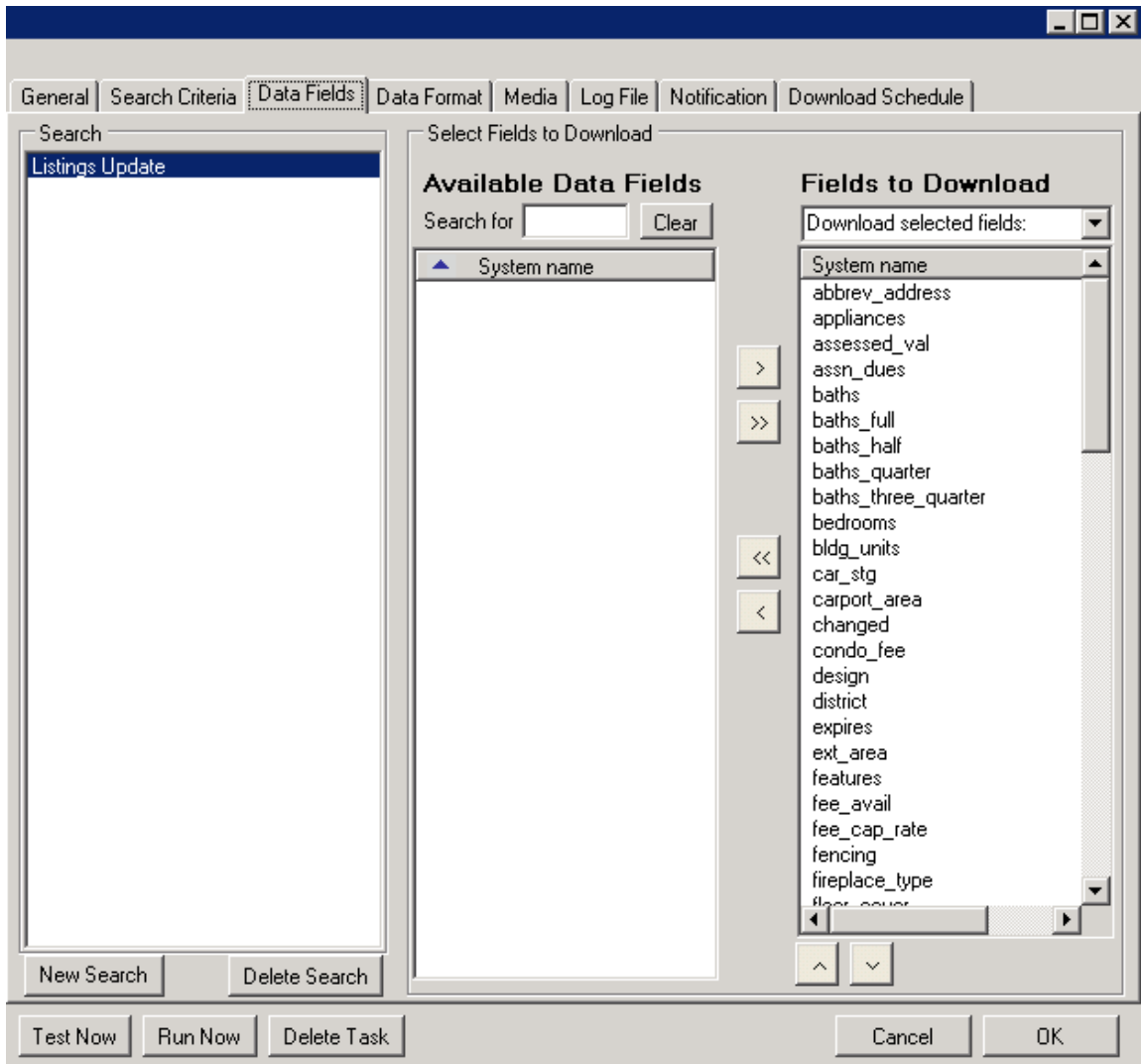
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When the Distributed Database was set up the date and time the process began is recorded in the application and then Step 1 downloads all new and updated listings based upon the RETS Field *changed* >= the date and time stored in the application as the last update date.



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Specify all of the available RETS fields to download that you require to populate your database.



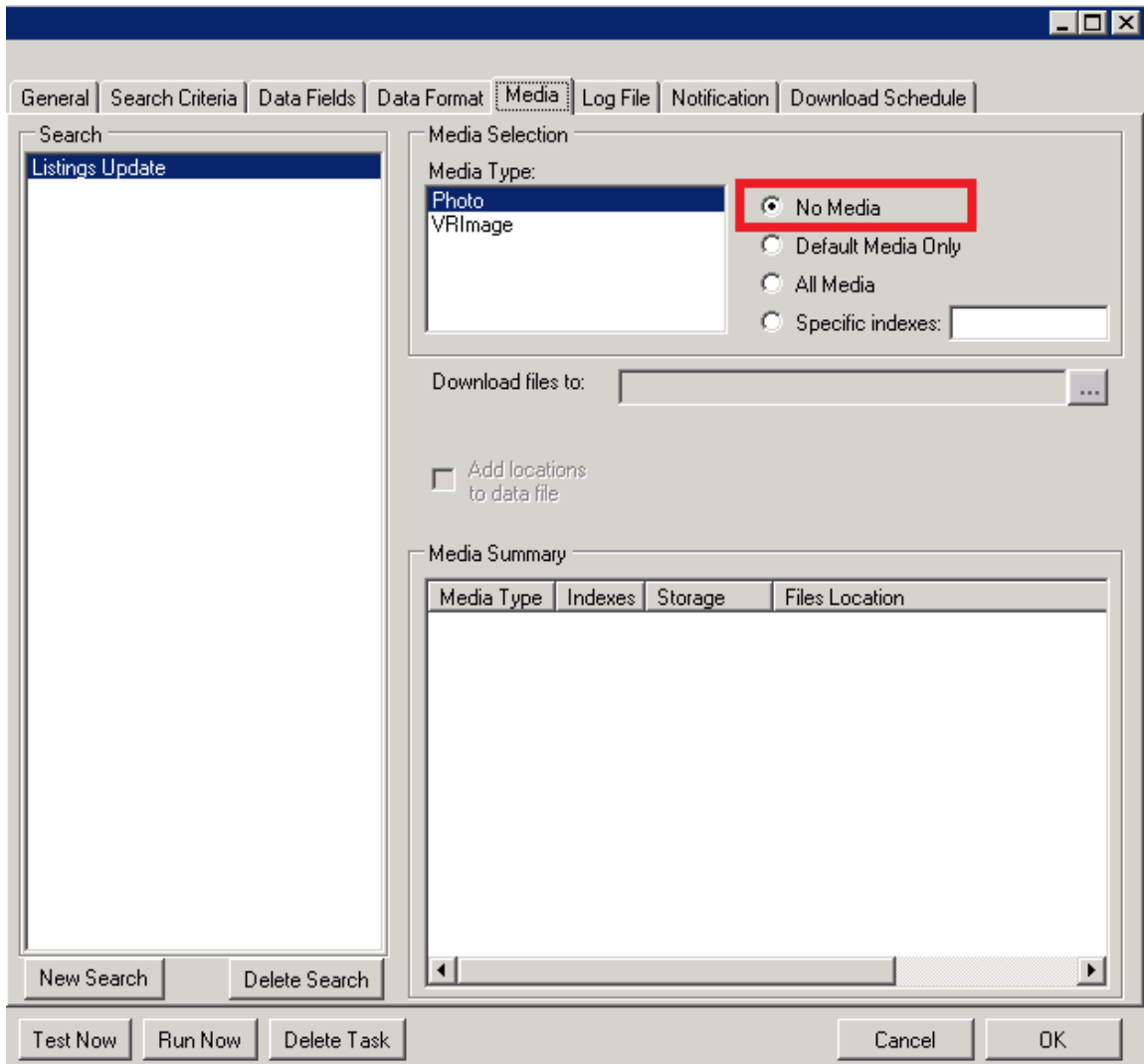
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Select the RETS download format you want to use. HIS RETS supports the XML Compact and Compact Decoded formats. Using RETS Connector also allows you to select a delimited record format.

The screenshot shows the 'Data Format' tab of the RETS Connector configuration window. The window has a title bar with standard minimize, maximize, and close buttons. Below the title bar is a tabbed interface with the following tabs: 'General', 'Search Criteria', 'Data Fields', 'Data Format' (selected), 'Media', 'Log File', 'Notification', and 'Download Schedule'. On the left side, there is a 'Search' list box containing one entry, 'Listings Update'. Below this list are two buttons: 'New Search' and 'Delete Search'. The main area of the dialog is divided into three sections: 1. 'Data Format': This section contains radio buttons for 'XML', 'Standard', 'Compact', and 'Compact Decoded'. The 'Delimited' option is selected, with a dropdown menu set to 'Tab'. There are checkboxes for 'Decoded' and 'Include headers', both of which are unchecked. A 'Long' dropdown menu is also present. An 'Include count' checkbox is also unchecked. 2. 'Data Selection': This section has a 'Maximum Records Returned' text box, a checked checkbox for 'Use Index to overcome server's limits', and a 'Record Offset' text box. 3. 'Output File': This section has a text box containing the path 'C:\Documents and Settings\greg\Desktop\RETS results\My Documents' followed by a browse button (...). Below the text box are radio buttons for 'Overwrite' and 'Use unique filename', with 'Use unique filename' selected. A note below reads '(Appends an incremental number to the end of filename)'. At the bottom of the dialog are five buttons: 'Test Now', 'Run Now', 'Delete Task', 'Cancel', and 'OK'.

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In Step 1 you only want to download the Property Listing data. In Step 2 new and updated photos will be downloaded.



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Step 1 has now been incorporated into the RETS Connector scheduler. The process can be setup to run Daily or in more frequent increments such as every hour.

The screenshot shows a software dialog box titled "Download Schedule" with several tabs: "General", "Search Criteria", "Data Fields", "Data Format", "Media", "Log File", "Notification", and "Download Schedule". The "Download Schedule" tab is active and contains the following settings:

- Enable Scheduling
- Last run (client): Never
- Successfull (server):
- Schedule Task: daily (dropdown)
- Day: (each) (dropdown)
- Start Time: 10:04 AM (time spinner)

The "Download Options" section contains:

- Full Download
- Incremental download since last loaded modification on: Never
- Incremental download since: June 08, 2011 at 10:05AM (dropdown)

At the bottom of the dialog are buttons for "Test Now", "Run Now", "Delete Task", "Cancel", and "OK".

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Step 2. Update Property Photos in the Distributed Database.

This is Step 2 in the incremental update process that will download new and updated photos based upon the RETS field *media_changed*.

The screenshot shows the RETS Connector configuration window for a task named "ListingPhotoUpdate". The window has several tabs: General, Search Criteria, Data Fields, Data Format, Media, Log File, Notification, and Download Schedule. The "General" tab is active. On the left, there is a "Search" list containing "ListingPhotoUpdate". The main area is divided into "Task Information" and "Search Information".

Task Information:

- Task Name: ListingPhotoUpdate
- Description: This task will use the media_changed field to identify new and updated photos since the last distributed database update and then download the photos .
- Server Name: HISRETS
- Login URL: http://rets.hawaiiinformation.com:6103/rets/login
- User Name: greggpetch
- RETS Version: RETS/1.7.2
- Field Names Used: System
- Results Folder: C:\Documents and Settings\greg\Desktop\RETS
- Last run (client): Never
- Successful (server):

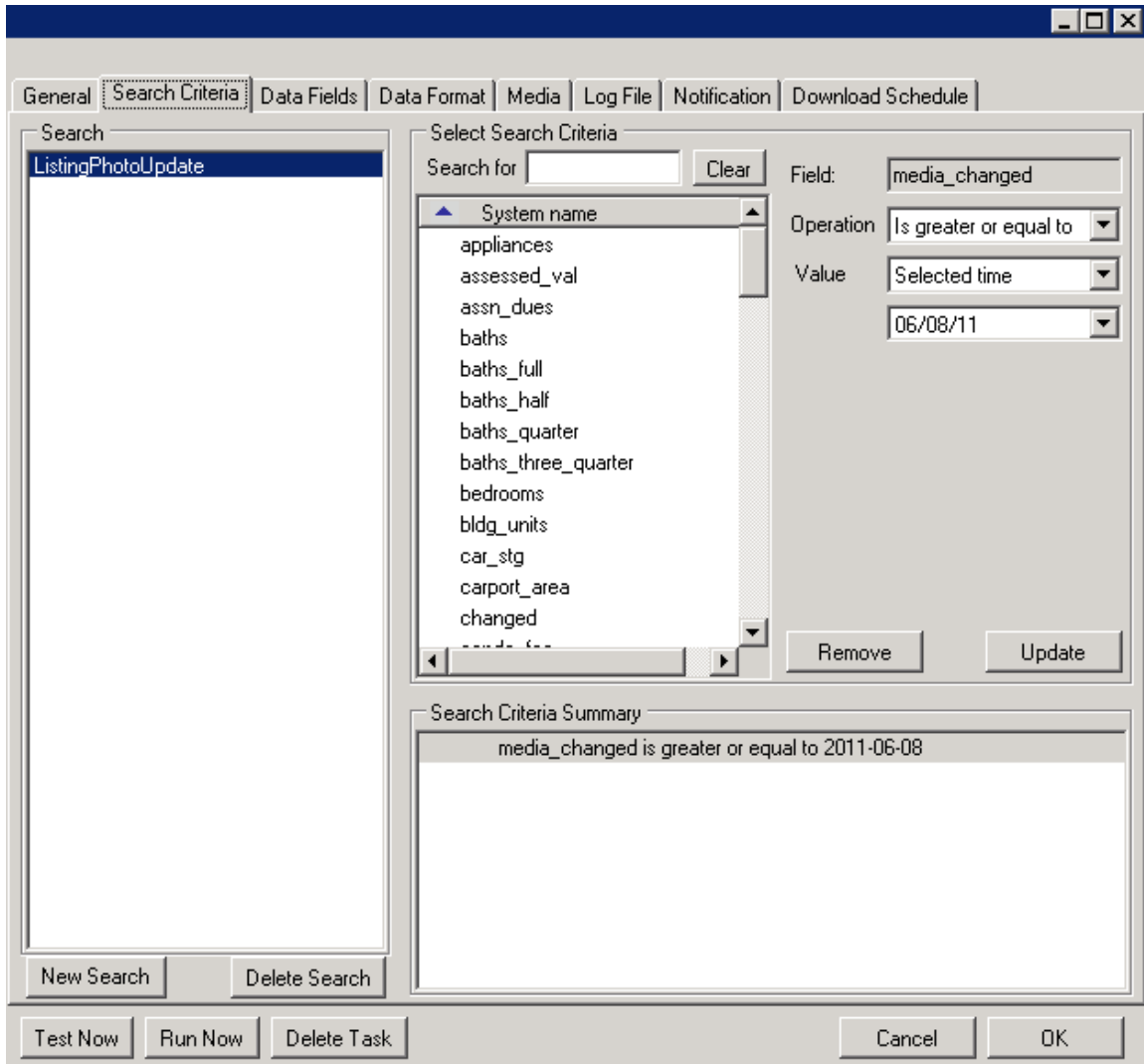
Search Information:

- Search Name: ListingPhotoUpdate
- Incremental modification field: media_changed (highlighted with a red box)
- HTTP Timeout (seconds): 60
- Resource: Property (Property resource)
- Class: Property (Property class)

Buttons at the bottom include: New Search, Delete Search, Test Now, Run Now, Delete Task, Cancel, and OK.

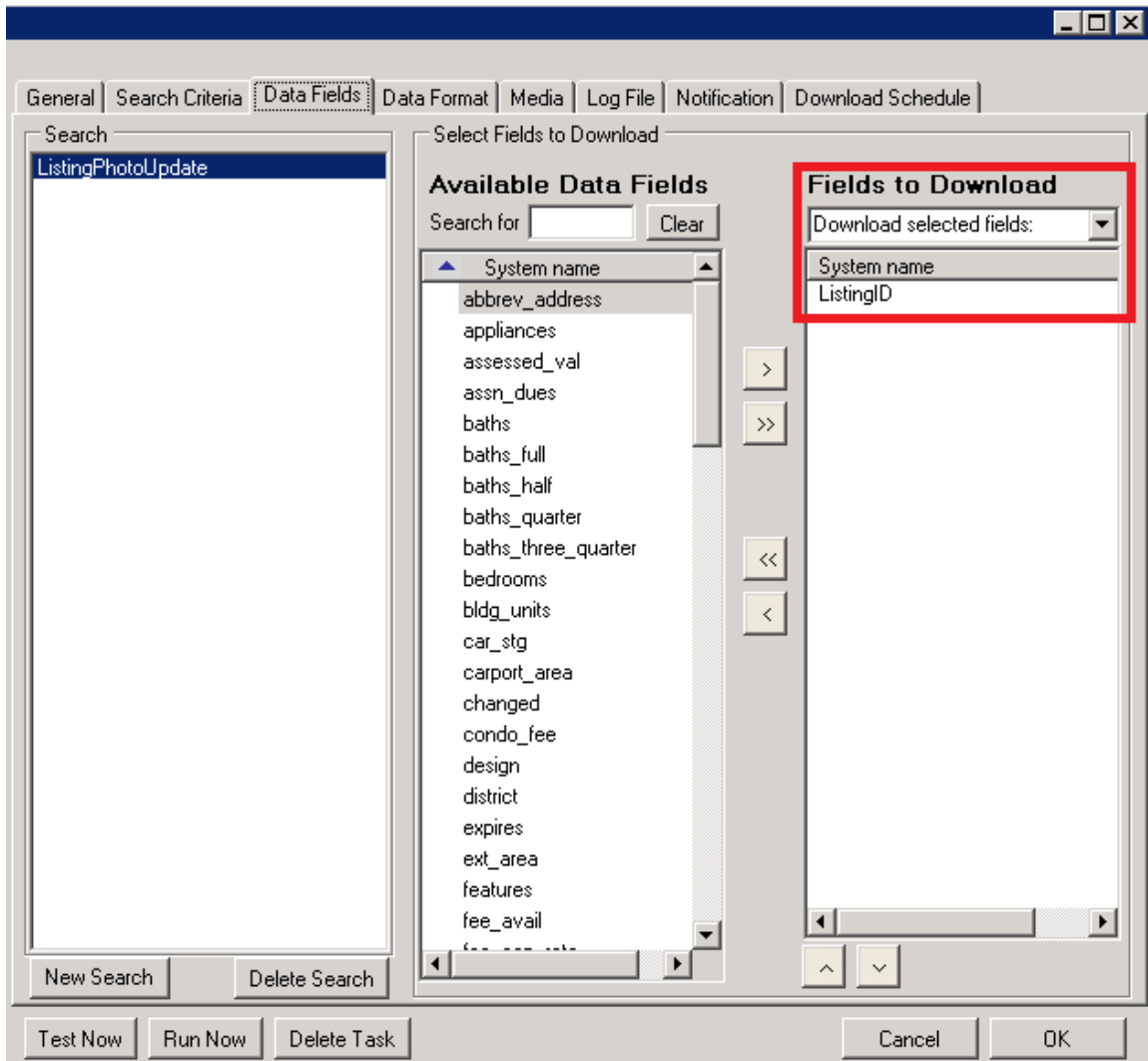
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When the Distributed Database was set up the date and time the process began is recorded in the application and now Step 2 downloads all new and updated photos based upon the RETS Field *media_changed* >= the date and time stored in the application as the last update date.



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When updating and adding photos the only data field that is needed is the RETS Field *ListingID*. The application will retrieve the ListingID and then retrieve the photos using the RETS `getobject` transaction.



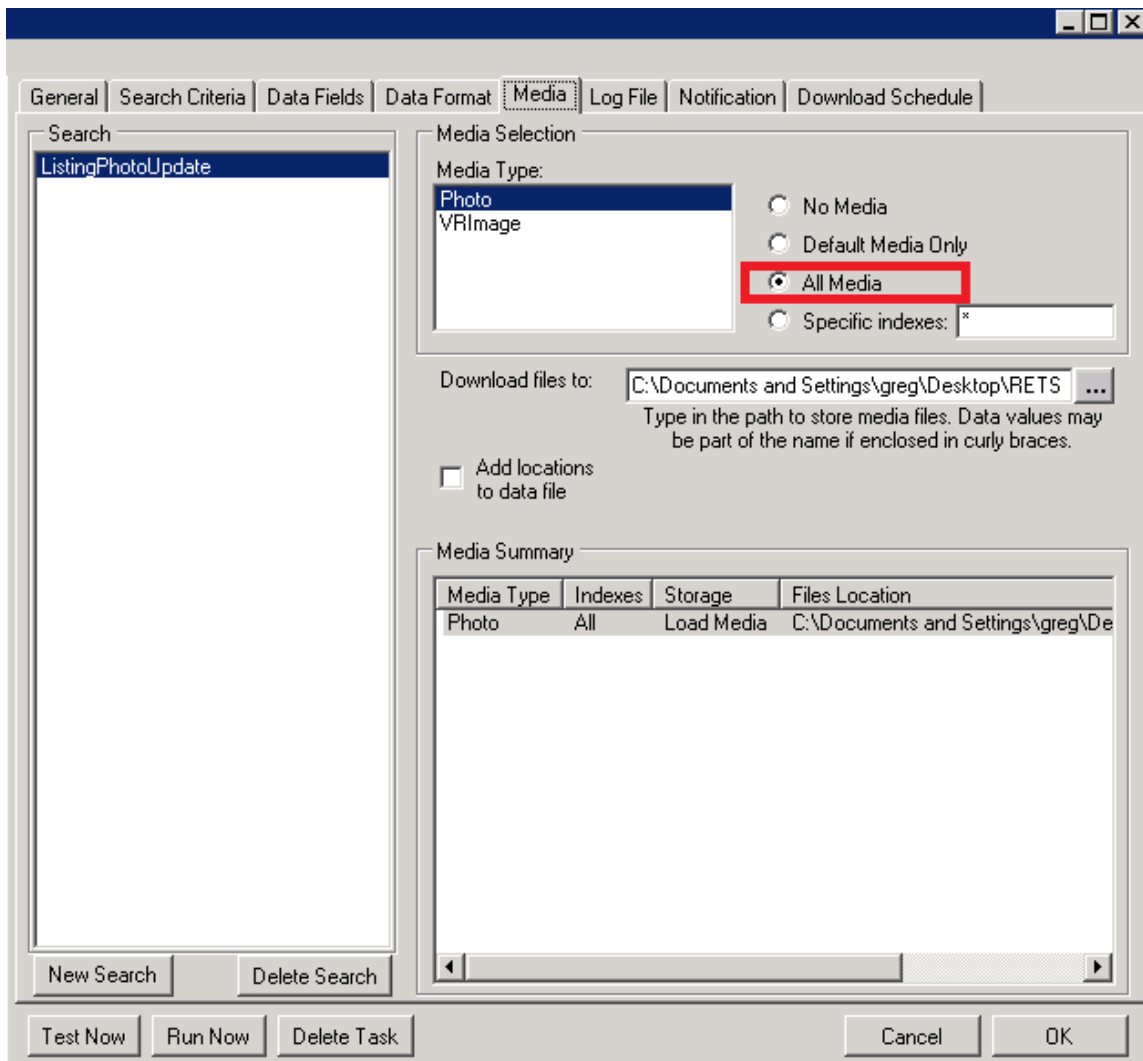
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Select the RETS download format you want to use. HIS RETS supports the XML Compact and Compact Decoded formats. Using RETS Connector also allows you to select a delimited record format.

The screenshot shows the 'Data Format' tab of a software interface. On the left, a search list contains 'ListingPhotoUpdate'. The 'Data Format' section has radio buttons for 'XML', 'Standard', 'Compact', and 'Compact Decoded' (selected). A 'Delimited' dropdown is set to 'Tab', with checkboxes for 'Decoded' and 'Include headers'. An 'Include count' checkbox is also present. The 'Data Selection' section includes 'Maximum Records Returned' and 'Record Offset' text boxes, with a checked 'Use Index to overcome server's limits' checkbox. The 'Output File' section shows a file path 'C:\Documents and Settings\greg\Desktop\RETS results\Media\My Doc' and radio buttons for 'Overwrite' and 'Use unique filename' (selected). At the bottom are buttons for 'New Search', 'Delete Search', 'Test Now', 'Run Now', 'Delete Task', 'Cancel', and 'OK'.

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In Step 2 the Media Selection is set to download the new and updated photos.



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Step 2 has now been incorporated into the RETS Connector scheduler. The process can be setup to run Daily or in more frequent increments such as every hour.

The screenshot shows a software dialog box titled "Download Schedule" with several tabs: "General", "Search Criteria", "Data Fields", "Data Format", "Media", "Log File", "Notification", and "Download Schedule". The "Download Schedule" tab is active. It contains two main sections: "Download Scheduling" and "Download Options".

Download Scheduling:

- Enable Scheduling
- Last run (client): Never
- Successfull (server):
- Schedule Task: daily (dropdown)
- Day: (each) (dropdown)
- Start Time: 10:13 AM (time spinner)

Download Options:

- Full Download
- Incremental download since last loaded modification on: Never
- Incremental download since: June 08, 2011 at 11:10AM (dropdown)

At the bottom of the dialog are buttons for "Test Now", "Run Now", "Delete Task", "Cancel", and "OK".