

Release

4.1

Luna Imaging Inc.

insight® Administrator Tools

Administrator Tools

User Guide

Luna Imaging Inc.
insight[®]

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Introduction

This document is intended to supplement your knowledge of Insight Administrator Tools by exploring what they are, how they work with Insight, and explain common and complex functions of the tools. The reader of this document should be computer literate, familiar with databases, and have a general understanding of the Windows environment. This manual also assumes you (the reader) are the Administrator.

This document is organized into 4 chapters: Chapter One – Getting Started, Chapter Two – Building a Collection Using the VRA Model, Chapter Three – Managing Users, and Chapter Four – Creating and Managing Collections..

Chapter One – Getting Started introduces you to Insight Administrator Tools and provides instructions on how to install or upgrade Insight Admin Tools.

Chapter Two – Building a Collection Using the VRA Model provides step-by-step instructions on how to build a collection using a VRA model.

Chapter Three – Managing Users explain how to control and share access to Insight collections. This chapter defines the various components of the User Manager and how to create and use these components. For example, you will learn how to create a new admin account, add a user to the User Manager, create a profile, create a user group, or how to add a new collection and provide access for existing users.

Chapter Four – Creating and Managing Collections define how to construct, configure, build and maintain Insight collections. This chapter explores the various components within the Collection Manager function, such as profiles, fields, joins, media batches, and others and how they work together within the Collection Manager. This chapter examines collection access, design concepts, and how to edit and manage a collection. Examples are given on how to perform a variety of tasks using real-world scenarios. This chapter is divided into four sections: Creating and Configuring a Collection, Building a Collection, Managing Media, and Managing Collections.

Getting Started

Administrator Tools (Admin Tools) were created to help you perform and control simple to complex tasks in your Insight collection(s). Numerous users of Luna Imaging's Insight software expressed that they want the ability to manage, setup, create, and control many aspects and processes of their Insight collection. These tools exist to help give you more control over your Insight collections by performing standard and non-standard tasks in an organized format.

To understand Insight Admin Tools, you need to understand three separate components, the User Manager, Collection Manager, and how to build a collection using a model (such as Visual Resource Association, v3.0 (VRA)).

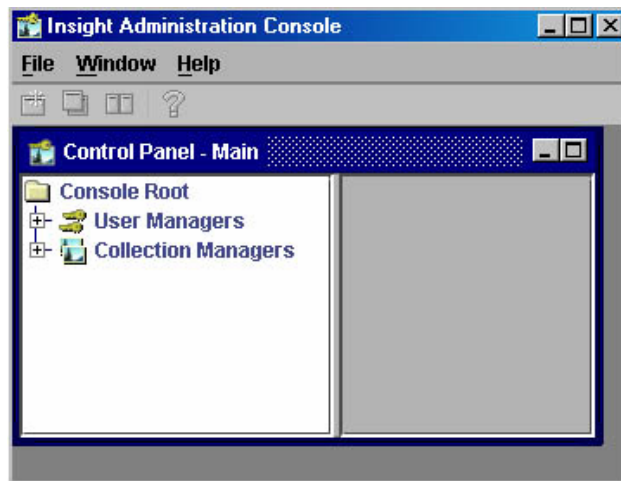


Figure 1 – Insight Administration Console

The User Manager controls access by authenticating users and acts as a central repository for User Group files and other shared content.

The Collection Manager is where a collection is defined and controlled. In the Collection Manager you can define all aspects of how a user can interact with a collection as well as how a collection retrieves information from the database.

Before you begin to learn about the Insight Admin Tool, you must first install the Insight Administrator Tools, learn how to configure a connection, and understand how to build a collection.

Installing or Upgrading Insight Administrator Tools

See instructions in *Insight Installation and Configuration Manual*, Release 4.1.

Setting Up a Connection

The properties for setting up a connection are very consistent in the Insight Administrator Tools. Many functions may refer you back to this section when describing or referring to the setting up of a connection.

Connections are paramount to the function of Insight Administrator Tools. If the connection is not configured properly, the tool will not function correctly. The list below highlights the key features to configure when you are setting up a connection.

Database Connector- The usual options for Database Connector are JDBC, RDO, and ADO.

Connect String- This can vary depending on the database connector that you are using. Insight supports Sprinta 2000 JDBC driver for Microsoft SQL Server database and Oracle JDBC driver for Oracle database. The JDBC connect strings are:

Sprinta 2000 and MS SQL Server:

`www.MyCollege.edu:1433?database=InsightUserServer&sql7=true&user=insight&password=insight`

Format: `IP:Port?DatabaseName&sql7=true&user=dbUserName&password=dbPassword`

Oracle 8i and 9i

`@www,MyCollege.edu:1521:InsightUserServer`

Format: `@Domain or IP:Port:Database Name`

JDBC Driver Name- Part of the JDBC connector. This connector is formed in three parts (JDBC Driver Name + JDBC URL Prefix + Connect String). Examples are:

Sprinta 2000 JDBC driver for MS SQL Server: `com.inet.tds.TdsDriver`

Oracle JDBC Driver for Oracle 8i and 9i: `oracle.jdbc.driver.OracleDriver`

JDBC URL Prefix- Part of the JDBC connector. Examples are:

Sprinta 2000 JDBC for MS SQL Server – `jdbc:inetdae7`

Oracle JDBC Driver for Oracle – `jdbc:oracle:thin`

Username- The identifier used to log into the database.

Password- The password to log into the database.

Debug Filename- This file will contain debug output for the Backend connector type. This is valuable when creating a new database connection.

Debug Mode On – Turn Backend debug on.

Technical Support

For **Technical Assistance**:

Luna Help Desk 1-800-452-LUNA (5862) – ext. 268

Email: support@luna-img.com

Phone Support Hours: Monday – Friday

9am – 5:30pm Pacific Standard Time

Building a Collection Using the VRA Model

Now that you have installed all the Insight components, you can start building a new collection. Following is a list of the components that must be installed before you can build a collection successfully:

- Relational database that Insight components use
- VRA Collection Manager
- User Manager
- Administrator Tools
- Inscribe Data Editor

Here are the major steps for building a collection using the VRA model:

- Create and configure a new collection
- Enter data for collection objects using the VRA model
- Processing data using Indexer
- Prepare image/media for the objects
- Link image/media with data objects
- Create and authorize users to access the collection
- Distribute Insight JVA clients to end users
- Set up Insight Browser for the collection

Configure a New Collection

Required Items:

- Administrator Tools

- Access to the system where Insight Collection Manager is installed (if Administrator Tools is running on a different system)
- Access to the database to which Insight Collection Manager is connected to
- All the necessary information about the collection, e.g., collection name, collection description, and other properties.

Configure a New Collection

The installation of VRA Collection Manager has created a Sample Collection VRA. You will do the following:

1. Remove the contents of Sample Collection VRA

Run a script to remove the contents of Sample Collection VRA. The script is on the CD for Insight Standard under the directory of Utilities\vra\VRAImport.pl. The instructions to run the script are in "Insight VRA Import Script.doc." To move the contents, just issue the script with switch -c.

2. Configure The VRA Collection with a new collection name and other properties following the steps in Chapter 4: Working with Collection Manager, Section 1 Controlling Collection Access, Configure a Collection

Result:

A new collection is configured and its configurations are stored in the database connected to the Collection Manager.

Enter Object Data to the New Collection

There are two methods to enter object data to the new collection:

Importing data using script. This method is preferred when entering substantial amount of data already stored in flat files, spread sheet, or databases.

Note: If you are importing more than 20,000 records for any one "Record Type" into your Insight Standard collection, you will need to make the following change in the Insight Administrator Tools.

1. Log into the Insight VRA 4.1 collection in Admin Tools.
2. Under InScribe Settings, go to Record Types and select the Types that exceed this limit.
3. Edit the Record Type by double-clicking on the appropriate row or right-clicking and selecting Edit.
4. Change the "Maximum Record ID" to a higher number than you expect to import, then Save.

The data importing script is included on the CD for Insight Standard under the directory of \utilities\vra\VRAImport.pl.

Using Insight VRA Import Script:

- Preparing to use the Import Script:

After you have reviewed the VRA core data dictionary, you can begin to construct a few sample records to test your data import. Before you construct your first record, please note that the import script makes some basic assumptions about the structure of any record that is imported:

That each work record and each repro record starts with a WorkID or a ReproID respectively

Each record can be broken down into a series of parts or groups, creators, styles periods, sources, rights, descriptions, subjects, locations, etc. Each part, or group, has one required field that tells the script that it should expect data from that group. This field is required if you plan to put data in a secondary field. For example, the WorkCreatorDisplayName must precede the WorkCreatorFirstName and the WorkSourceDescription must precede the WorkSourceDetails.

Fields can be left blank. Using the example above, you could leave the WorkSourceDescription blank if you want to put data into the WorkSourceDetails.

Groups can repeat as many times as you want. Yes, you can have 50 creators for a work if you really want 50 creators.

Not all groups have to be used. If you decide that you don't want a description group, you don't have to have one.

- Choosing an Import format:

Luna Imaging Inc has provided three different formats to use with the import script. A tab separated format, a long text format, and XML. The benefits should be fairly self-explanatory. But, needless to say, some formats are easier than others for import.

If you have a pre-existing database, access or Filemaker for example, then the tab format may be easier.

If you have text with newlines in it, you will need to use the long text format or the XML format.

To see examples of each format see the examples folder.

- Other Requirements for using the script:

Install ActivePerl:

To install the ActivePerl you need to download and install the ActivePerl version 5.6.1 or higher. You can download the ActivePerl at <http://www.activestate.com> .

The Insight import script requires the installation of the following modules for the ActivePerl environment: (DBI, DBD::ODBC and XML::DOM (only if you want to use the XML import feature)).

The following steps explain how to install these modules:

- Change directory to a bin directory where you installed the perl.

```
cd c:\perl\bin
```

- Execute the ppm.bat file, you should see PPM prompt on your Dos window.

```
PPM>
```

- To see if the above modules are already installed in your ActivePerl environment, by typing the query command at the PPM> prompt.

```
PPM> query
```

- This command will list all the modules are currently available. Look for the following modules:

```
DBD-ODBC
```

```
DBI
```

```
XML-DOM (optional)
```

If one of these modules is missing then you need to install it.

To install the modules type the following commands at the PPM prompt.

```
PPM> install dbi
```

```
PPM> install dbd-odbc
```

```
PPM> install xml-dom
```

Setup ODBC Data Source:

ODBC – System DSN. You must create a System level DSN on the machine you will run the script on which connects to the VRA database. It has been our experience that you should use SQL level authentication to connect to the database. You will need to edit the following three variables in the script prior to running it:

Setup the VRAImport.pl script:

- Running the script:

The script takes the following switches

Clear=all -- clear the source tables prior to import

filetype=xml -- treat import file as an xml file

filetype=tab -- treat import file as a tab separated file

filetype=long -- treat import file as long text format

filename=filename.txt -- specify filename

username=username -- specify username

pwd=password -- specify password

odbc=insight -- specify the system level ODBC connection name

Examples:

Clear the source tables and import the tab.txt file:

```
C:\perl\bin\perl VRAimport.pl clear=all filename=tab.txt
filetype=long username= test pwd=password odbc=insight
```

- After you've run the script:

After the completion of the script, you will need to run the indexer in the admin tools before your data displays in Inscribe or insight.

- **Entering data using Inscribe.** This method is good for entering object data record by record manually.

Please follow the instructions in Inscribe Installation and Configuration Guide.

Process Data Using Indexer

After entered data, you need to run the Indexer in Administrator Tools to process the data.

Required Items:

- Administrator Tools
- Access to collection database

Running Indexer:

Please follow the steps in Chapter 4: Working with Collection Manager, Section 3: Managing Collections, Invoking Indexer

Result:

All the data are processed, and ready to be linked to media.

Processing Images for the Collection

This step is to process the images for your collection.

Required Items:

- Administrator Tools
- MrSID server (shipped with Insight)
- Images (e.g. TIFF) to be processed
- Information about the destination for result images

Process Images:

Please follow the steps in Chapter 4: Working with Collection Manager, Section 3: Managing Collections, Using Media Batch

Result:

The image files with different sizes are created and positioned to the specified locations.

Link images with data objects

Having entered data and processed images, now you can link the data objects with images.

Required Items:

- Administrator Tools
- Access to the collection database
- Access to the images
- Definition of the links between the data and images

Link image with data objects

Please follow the steps in Chapter 4: Working with Collection Manager, Section 3: Managing Collections

Result

Images are linked to object data records. All the data and images for the collection are now in the place.

Create and authorize users to access the collection

Have completed building the collection, you can create users and authorize them to access the collection.

Required Items:

- Administrator Tools
- Access to the User Manager database
- Information about the privileges you will authorize to the users

Create and authorize users to access the collection

Please follow the steps in Chapter 3: Exploring the User Manager:

- Add a User to the User Manager
- Create a User Group
- Create a User Profile
- Add Profile to User
- Create a Login Group
- Add a Collection to an Existing User Manager and Provide Access to Existing Users

Result

Users are created and authorized to access the collection.

Package and Distribute Insight JVA Client to End Users

Insight JVA Client needs to be packaged and distributed to end users, so they can use it to access the collection. If you have already distributed Insight JVA client to end users, you can skip this step.

Required Items:

- Insight JVA client
- Configured Insight.dat file
- Packaging tool
 - WinZip Self-Extractor for Windows end users.
 - MacOS for Mac users

Package and Distribute Insight JVA client

Please follow the steps in Insight Installation and Configuration Guide:

- Package and Distribute Insight JVA Client

Result

Insight JVA client is distributed to end users.

Configure Insight Browser Server for the Collection (optional)

If you would like to provide Internet Browser access to the collection you just built, you need to configure Insight Browser Server for the collection.

Required Items:

- CD for Insight Browser
- Access to the Collection Manager database
- System where you will install Insight Browser Server

Configure Insight Browser Server

Please follow the steps in Insight Installation and Configuration Manual to configure Insight Browser Server.

Result

Users can access the collection using Internet Browser

Managing Users

The User Manager enables you to control access to collections and provide users an area to share content in a controlled forum. You are able to manage this shared content from within this interface.

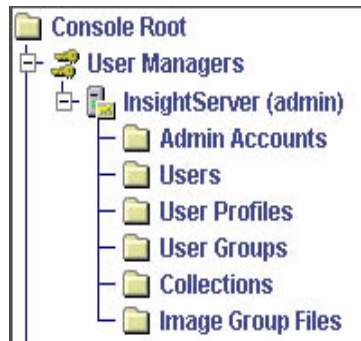


Figure 2 - User Manager Components

Designed to provide Insight users the ability to:

- Manage user log-in names/passwords/privileges. See *Chapter 3, Create a New Admin Account*.
- Assign users to “user groups” with group-level privileges (example: faculty group, student group). See *Chapter 3, Add a User to a User Manager*.
- Create folders where users can save image groups and image presentations (example: Art101 folder). See *Chapter 3, Create a User Group*.
- Add collections to a User Manager. See *Chapter 3, Add a Collection to an Existing User Manager and Provide Access to Existing Users*.
- Manage the read/write/delete privileges to folders for specific user groups (example: faculty folder restricted from student view). See *Chapter 3, Create a User Profile*.

The following list defines the User Manager components.

Admin Accounts

The Admin Accounts folder enables you to grant access, rights and privileges to work within the Insight Admin Tools for the selected User Manager.

Users

The Users folder is where you manage user accounts. You can set up user names, passwords, and assign users to Profiles.

User Profiles

A User Profile determines how a user enters a collection and whether the user is granted read, write, and delete privileges within User Groups' Login Group assignment.

User Groups

User Groups are a place where multiple users can save, store, and share content. This content can be images, annotations, videos, sound, or other information.

Collections are assigned to User Groups but a User Group can exist without being assigned a collection.

Login Group

A login group is the group that is used to authenticate against the Collection Manager. The User Manager uses the login groups *Group Name* and *Code Key* to authenticate against a collection. Once this group name and code key successfully authenticate against a collection(s), all groups that are associated with that group's profile are allowed access to those collection(s). The Login group is assigned in the User Profiles folder and the group name and code key must be provided in the User Group.

The group name and code key is similar to a user name and password to grant access to a Collection Manager. A collection owner may want to share their collection. The group name and code key is what gives them this control.

Collections

Collection Manager properties can be set here. This includes the collection name as it appears during login, the collection ID, institution ID, address, port, location, and whether it is a virtual collection or not.

Image Group Files

The Image Group Files folder allows you to view properties and rename image groups that are contained in User Groups from within the Insight Administration Console.

Register a New User Manager

Follow the steps below to register a new user Manager:

1. Right click on the User Manager folder. A *Register New* popup appears.
2. Click on the popup. A Register New User Manager dialog opens.

Figure 3 - Register New User Manager

3. *Browse for Config File* - Navigate to your local server where Insight is running. Locate and open the **InsightUserServer.dat** or **InsightBackend.dat** file.
4. *Load config file values* - This reads the **InsightUserServer.dat** file and the **InsightBackend.dat** file and places the values into the form.
5. *User Manager Name* - This is usually your server machine name or IP address.
6. *Connect String* - This string can vary depending on the database connector that you are using. Insight supports Sprinta 2000 JDBC driver for Microsoft SQL server database and Oracle JDBC driver for Oracle database. The JDBC connect strings are:

Sprinta 2000 and MS SQL Server:

www.MyCollege.edu:1433?database=InsightUserServer&sql7=true&user=insight&password=insight

Format:

IP:Port?DatabaseName&sql7=true&user=dbUserName&password=dbPassword

Oracle 8i and 9i

@www,MyCollege.edu:1521:InsightUserServer

Format: @Domain or IP:Port:Database Name

7. *Database Username* - This is the identifier used to log into the database.
8. *Database Password* - The password is needed to log into the database.
9. *Query Mode* - Select either Entry Level SQL 92 or Intermediate Level SQL 92.
 - Entry Level SQL 92 should be selected for databases that do not support inner joins, for example, Oracle 8i, 9i.
 - Intermediate Level SQL 92 should be selected for databases that support inner joins.
10. *Database Connector* - Choose from three connector types: JDBC, RDO, or ADO. JDBC should be selected in the majority of cases.
11. *JDBC Driver Name* - This connector is comprised of three parts: (JDBC Driver Name + JDBC URL Prefix + Connect String). Examples are:
 Sprinta 2000 JDBC driver for MS SQL Server: com.inet.tds.TdsDriver
 Oracle JDBC Driver for Oracle 8i and 9i: oracle.jdbc.driver.OracleDriver
12. *JDBC URL Prefix* - Examples are:
 Sprinta 2000 JDBC for MS SQL Server – jdbc:inetdae7
 Oracle JDBC Driver for Oracle – jdbc:oracle:thin
13. Press the Save button to save the above configurations.

Edit Properties of a User Manager Collection

After registering a new user, you may want to change the properties of a User Manager Collection. The properties of a User Manager Collection may be edited by right clicking on **Insight User Mgr. Collection** from the navigation tree and selecting *Properties*. The following dialog appears:

The screenshot shows a dialog box titled "Edit Props File - C:\RLG\SQLServer\InsightUserServer.dat". It contains the following sections and controls:

- User Server Configuration:**
 - Assume Synchronized Field Standards
 - Default Fuzzy Date Help File Path:
 - Multiple Collection Background Image Path:
 - Multiple Collection Background Color: [0, 0, 0]
 -
- Debug Settings:**
 - Log file name: Debug Level: (dropdown)
- Database Connection Settings:**
 - Database Connect String:
 - Use DISTINCT keyword
 - Query Mode: (dropdown)
- Optional Database Configuration:**
 - Check boxes on the right to enable overriding of default values.
 - Database Connector:
 - JDBC Driver Name:
 - JDBC URL Prefix:
 - Username:
 - Password:
 - Debug Filename:
 - Debug Mode On
 -

At the bottom of the dialog are and buttons.

Figure 4 - Edit Properties for User Mgr. Collection

User Server Configuration:

1. *Assume Synchronized Field Standard*- If this is enabled, the User Manager passes this parameter to the Insight client. During cross collection searches, the client will take the first collection's Field Standards mapping and assume all other collections follow this same mapping. This will save time and will not require synchronization each time multiple collections are opened.
2. *Default Fuzzy Date Help File Path*- This is a URL to the Fuzzy Date Help File.
3. If a user selects a single instance of a collection, this selection goes through the Collection Manager. When a user selects multiple collections, it goes through the User Manager and a general background color will need to load. The User Manager controls this background. The following two options need to be set in order for this to work:

Multiple Collection Background Image Path - Input the URL address to the shared background image.

Multiple Collection Background Color - Choose the shared color that will surround the background image.

Debug Settings:

1. *Log file name*- Enter a name for the log file.
2. *Debug Level*- By turning debug on, you will display on the console and print to file the information you need to help you find and correct configuration errors in Insight.

Database Connection Settings:

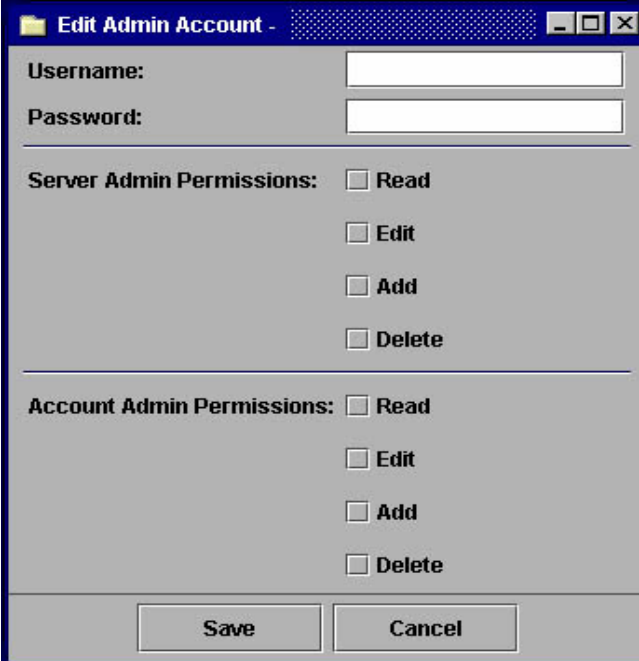
1. *Database Connect String* – Refer to *Chapter 1, Setting Up a Connection*, in this manual.
2. *Use DISTINCT keyword* – Some databases do not support the DISTINCT keyword in SQL calls. Set this for your database.
3. *Query Mode* – Some databases do not fully support the SQL 92 standard. Choose the appropriate mode for your database.
MS SQLor Oracle 9i – Intermediate level SQL 92 (inner Join support).
Oracle 8i – Entry level SQL 92 (no inner Join support).

Optional Database Configuration: In this area, you can edit your database connector (InsightBackend.dat file) from your local server. For this section, refer to *Chapter 1*, read the topic *Setting Up a Connection*, in this manual.

Create a New Admin Account

Only an Insight Administrator can grant access, rights and privileges to work within the Insight Admin Tools for the selected User Manager or Collection Manager. You can create a new Admin Account from either a User Manager or Collection Manager. Follow the steps below to create a new account for an Insight Administrator:

1. Right mouse click on **Admin Account** and select *New*. The following dialog panel appears:



The screenshot shows a dialog box titled "Edit Admin Account". It has a standard Windows-style title bar with minimize, maximize, and close buttons. The dialog is divided into several sections. At the top, there are two text input fields labeled "Username:" and "Password:". Below these, there are two sections of permissions, each with four checkboxes. The first section is labeled "Server Admin Permissions" and includes checkboxes for "Read", "Edit", "Add", and "Delete". The second section is labeled "Account Admin Permissions" and also includes checkboxes for "Read", "Edit", "Add", and "Delete". At the bottom of the dialog, there are two buttons: "Save" and "Cancel".

Figure 5 – Create a New Admin Account

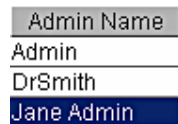
2. *Username* and *password* - The username and password should be unique and are not case sensitive. Once a valid combination is entered, you will successfully log into the User Manager and Server Manager or Collection Manager and Server Manager (depending from where you are creating this new Admin Account, either from the User Manager or Collection Manager).
3. Select the appropriate *Server Admin Permissions* for the newly created administrator account.
 - Read allows you to view but not change privileges within the User Manager (Collection Manager).
 - Edit enables you to change privileges within the User Manager (Collection Manager).
 - Add allows you to add elements within the User Manager (Collection Manager).

- Delete enables you to delete elements within the User Manager (Collection Manager).
 - Collection Editor grants access to the Collection Editor tools (Invoke Indexer, Media Batches, and Map-Objects-to-Media). You can only use the Collection Editor by gaining access to the Collection Manager.
4. Select the appropriate *Account Admin Permissions* for the new Admin Account you have created.
 - Read enables you to view the Admin Accounts.
 - Edit allows you to edit the Admin Accounts.
 - Add gives permission for you to add Admin Accounts.
 - Delete enables you to delete Admin Accounts.
 5. After populating the Edit Admin Account window for the new user, click Save. The newly created account can be accessed by clicking on the name of the new account and selecting Edit.

Although the Admin Tools supports multiple accounts with identical usernames, it is recommended that each account have a unique username.

View an Existing Account

1. Double click an Admin Name (i.e. Jane Admin) to view their account information.



Admin Name
Admin
DrSmith
Jane Admin

Figure 6 – View an Admin Account

The administrator's account information appears in the *Edit Admin Account* dialog.

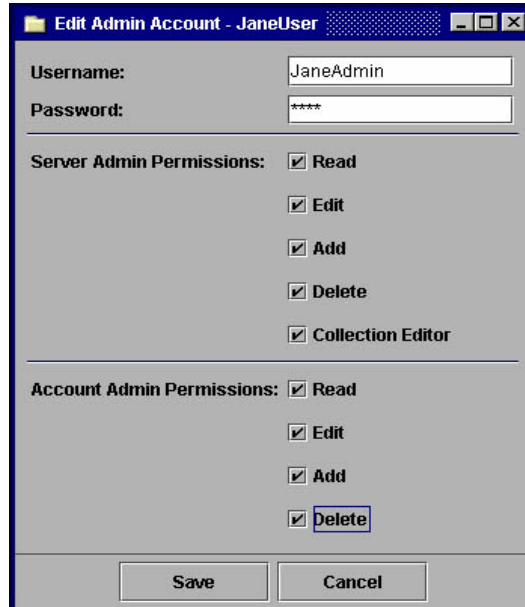


Figure 7 – Edit an Admin Account

2. Authorized administrators have the ability to change the Username, Password, Server Admin Permissions and Account Admin Permissions from within the Edit Admin Account window. In this case, Jane Admin has the right to Read, Edit, Add, and Delete. Jane Admin also has Collection Editor rights for the Server Admin Permissions and all the available rights in Account Admin Permissions.

Note: If an administrator only has **Collection Editor** rights and nothing else, they will only be able to access the items in the Collection Editor folder as depicted in the figure below.

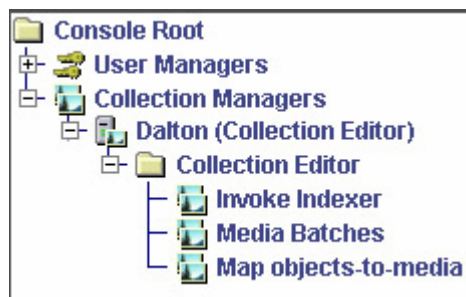


Figure 8 -View of Collection Editor

Note: If you only have Collection Editor rights, skip the rest of this chapter and turn to Chapter 4, *Section 2 and Section 3* and read *Building a Collection* and *Managing Media*.

Not all administrators will have or need the same rights. However, **Read** permissions are required to provide you with additional permissions, such as **Edit**, **Add** or **Delete**.

Add a User to the User Manager

In order to give an end user the access to Insight, you have to create a user account. You can use the Users folder to add and manage user accounts. You can set up user names, passwords, and assign users to Profiles.

Follow the steps below to add a New User account:

1. Right mouse click on the **Users** folder in the navigation tree and select New. This launches the *Edit User* window.




Figure 9 - Add a User to User Manager

2. Populate the fields for the user you are creating and assign the user to one or more profiles. Use the right > arrow to assign profiles and the left < arrow to delete assigned profiles. You need to assign at least one profile to a user (refer to *Create a User Profile* in this chapter).
3. Once completed, click Save to create the new user. The new user account appears when the Users folder is opened in the navigation tree.

Create a User Group

User Groups are made up of multiple users who can save, store, and share contents within these groups. This content can be images, annotations, media or other information. Collections are assigned to user groups but a user group can exist without being assigned a collection. Think of user groups as folders where you share contents.

Follow the instructions below to create a new User Group:

1. Right click on **User Groups** and select New. This will launch the *Edit User Group* window.

Figure 10 - Create a User Group

2. *Group Name* - This is the name of this user group. Do not include any spaces, hyphens, or special keys in the group name. Use only alpha or numeric characters.
3. *Code Key* - This can be a unique password used between the User Manager and the Collection Manager in order to retrieve a specific collection. You can use unlimited characters but spaces and special characters are not allowed.

4. *Display Name* - This is an optional field.

Note: The Display Name field is currently not a required field but it does require a space or you will receive an error message.

5. *Available* and *Assigned* Collections - Select the collection(s) made available to this group. Use the right > arrow button to move collections from *Available* to *Assigned*. Use the left < arrow button to delete collections from the *Assigned* Collections. When you have completed your selections, click Save.

You can also use the *Edit User Group* dialog panel to create folders where users can save image groups and image presentations (example: Art101 folder). Follow steps 1 through 4 and skip step 5 and then select *Save* to save your newly created folder.

Create a User Profile

A User Profile determines how a user accesses a collection and whether the user is granted read, write, and delete privileges within User Groups.

Use the procedures below to create a new User Profile:

1. Right click on the **User Profiles** folder in the navigation tree.
2. Select the New menu option to open the *Edit User Profile* window.



Figure 11 - Create a User Profile

3. *Profile Name* - This name should be descriptive of this profile (i.e. art101).
4. *Available Groups/Assigned Groups* - Assign the user groups you wish to include as members of your profile from Available Groups to Assigned Groups. Use the right > arrow to assign the user groups and the left < arrow to delete them from the Assigned Groups.
5. *Login Group* - A login group is the group that is used to authenticate against the Collection Manager. The User Manager uses the login groups *Group Name* and *Code Key* to authenticate against a collection. Once this group name and code key successfully authenticate against a collection(s), all groups that are associated with that group's profile are allowed access to those collection(s). The Login group is assigned in the User Profiles folder and the group name and code key must be provided in the User Group.

Note: The group name and code key is similar to a user name and password to grant access to a Collection Manager. A collection owner may want to share their collection. The group name and code key is what gives them this control.

6. *Save Privileges* - Check this for each user group that you have granted access to from this user profile. By adding a user group you are allowing read access to that user group.
7. *Delete Privileges*. If this is checked, you have the capability to remove image groups that were created by other users.

Note: A user can always delete their own image group

Add Profile to User

To add a profile to a User, follow the steps below:

1. Right click on the **Users** folder in the navigation tree.
2. *Full Name* - Enter the user's full name.
3. *Username* - Select a Username from the table. This is the user you would like to update in the Users table, and select Edit, this will launch the Edit User window.

The screenshot shows a window titled "Edit User - staff". It contains the following fields and sections:

- Full Name:** [Empty text box]
- Username:** [Text box containing "staff"]
- Password:** [Text box containing "staff"]
- Organization:** [Empty text box]
- E-mail:** [Empty text box]
- Phone:** [Empty text box]
- Address:** [Empty text box]
- Available Profiles:** A list box containing: Columbia, Harvard, Yale, upenn, cca, cooper, moca, bard, rutgers, MoMA.
- Assigned Profiles:** A list box containing: ParsonsStaff.
- Between the two list boxes are two buttons: a right-pointing arrow (') and a left-pointing arrow (^).
- At the bottom are two buttons: "Save" and "Cancel".

Figure 12 - Add a Profile to a User

4. *Available and Assigned Profiles* - Select the name of the new profile in the Available Profiles list and add the Profile to the Assigned Profiles list by clicking on the top right > arrow. Once this is done, click Save, the group is now accessible for that user.

Create a Login Group

A login group is the group that is used to authenticate against the Collection Manager. The User Manager uses the login groups *Group Name* and *Code Key* to authenticate against a collection. Once this group name and code key successfully authenticate against a collection(s), all groups that are associated with that group's profile are allowed access to those collection(s). You can select a *login group* using the **User Profiles** folder and provide the Group Name and Code Key in the User Group folder. Any User Group in the Collection Manager is a Login Group. For an example, see the graphic below:

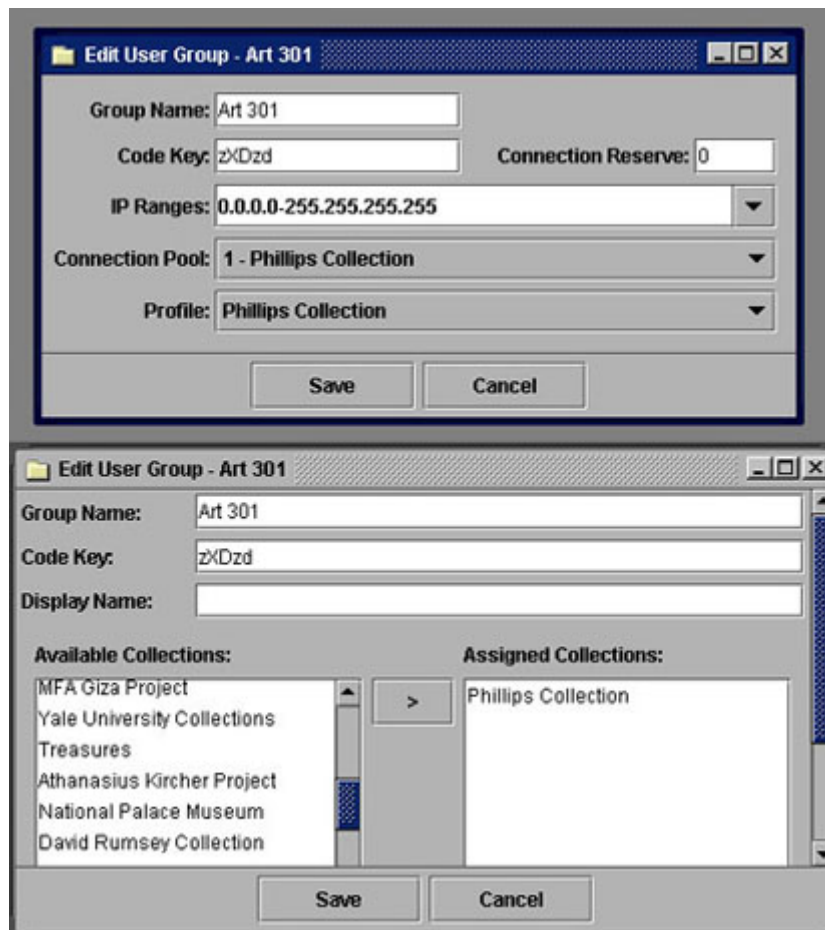


Figure 13 – Setting Up Group Name and Code Key in User Group folder

Add a Collection to an Existing User Manager and Provide Access to Existing Users

In order to add a collection to the User Manager, create the following in the order given:

- Add a collection.
- Create a User Group/ Login Group (Group Name and Code Key must be the same in the User Manager and Collection Manager, so access can be granted for a specific collection).
- Create a User Profile.
- Add a User.

Follow the steps below to create a new collection:

1. Right click on the **Collection** folder. Select the New menu option to open the *Edit Collection* window.

Edit Collection - The AMICO Library - v3.1

Collection Name: The AMICO Library - v3.1

Collection ID: 1

Browser Unique CID:

Institution ID: AMICO

Address: www.davidrumsey.com

Port: 2860

Locale: en_US - English United States

InScribe Enabled

Virtual - Virtual Collection ID: NA

Available Virtual Collection Constituents:

- Inscribe Demo - LUNA-MS
- David Rumsey Collection - DD
- Insight Standard - VRA
- Johnson Museum
- The AMICO Library - v3.1
- The AMICO Library - v4jva
- Dunhuang Archive
- Digital Scriptorium
- The AMICO Library - local
- Personal Collections - v4pc

Virtual Collection Constituents:

Save Cancel

Figure 14 - Add a Collection to Existing User Manager

2. *Collection Name* - This is the collection name that displays during login.
3. *Collection ID* number, *Institution ID* name, and *IP Address* or domain name of the Collection Manager - Enter these fields. The Institution ID is used in combination with the Collection ID to distinguish between collections during cross collection searches.

4. *Browser Unique CID* - Represents the Browser Insight instance identification number. This value corresponds to the collection profile defined in the BrowserInsight.conf file. For additional details on defining a collection profile in Insight Browser, see Chapter 2 of the Release 4.1 *Insight Installation and Configuration Manual*, the section on Configure Collection Manager Server Database Settings. Upon authentication within Insight Browser, the user is presented with a list of available collections. For each of the Insight collections listed, the Browser Unique CID value provides a reference to the collection instance that should be contacted. The Browser Unique ID may be used in a remote launch URL to automatically invoke a specific collection instance upon authentication.
5. *Port* - This is the number used for communications.
6. *Locale* - Location for the collection. This is the country and language of the collection. Currently supports US English, traditional Chinese, and simplified Chinese.
7. *InScribe Enabled* – Allows access from the Inscribe client. Only Collections that have been configured for Inscribe should have this checked.
8. *Virtual* - If this is a virtual collection, check the Virtual box and enter the *Virtual Collection ID* number. The default is set to not a virtual collection.
 - *Available Virtual Collection Constituents* - Select from this list that may contain portions of your virtual collection.
 - *Virtual Collection Constituents* - Contains collections that have been selected and contain portions of a virtual collection.
9. *User Group* - Create a user group with the Group Name and Code Key obtained from the owners of this collection. If it is your new collection, you will need to create a login group for that collection. Refer to the sections on *Create a Login Group* and *Create a User Group* in Chapter 3.
10. *Profile* - Make a new Profile for the Group. With the creation of a new User Group comes the creation of a new profile and the selection of a login group. To add a new profile, refer to the section *Create a Profile* in this chapter.
11. *Add Profile to Users*. - If you would like new User(s) or existing User(s) to be able to view, save, or delete within the newly created group you will need to assign the new profile to those users in the *Users* table. Refer to *Add Profile to User* in this chapter.
12. *Add Collection to User Groups* - Next, you (if you are the administrator) will need to add this collection to the User Group(s) that will be permitted to access this collection. To do this, right click on the User Group(s) that will be allowed to access the collection, this will launch the Edit User Groups window. In the *Edit User Groups* window, you will need to add the new collection to the existing group by choosing the new collection from the *Available Collections* section and adding it to the *Assigned Collections* section via the top arrow.

Authenticating using “Login” User Groups

Login User Groups obtain access to certain collections. Each Login User Group passes a group name and code key that are used to authenticate against a group name and code key in the User Groups table of the collection that is being accessed.

Note that the **Group Name** and **Code Key** in the **User Groups** table in the User Manager must be identical (case-sensitive) to the Group Name and Code Key in the User Groups table of the collection that you are trying to access. Each User Group in the User Groups table in the collection are assigned to a profile within the Collection Manager that specifies what permissions a User Group is given within that collection.

Multiple User Groups Accessing Single Collection

There are many different levels of users within Insight software. The first example illustrates how you can set up multiple user groups to share one collection. The second example illustrates how you can set up multiple user groups to access or share multiple collections using the Admin Tools.

In the first fictitious example, we have one collection available to an Art Professor and an Art Student at a certain university. The collection is an Art Collection that is composed of many different types of art and objects.

In this example, the Art department at this university only offers one class (ProfArt101) and this class accesses data from the Art collection. The Art Professor is teaching art (ProfArt101) to his Art Student (StudentArt101). The Art Student needs access to the class he is attending (ProfArt101) and will need access to his student data (StudentArt101). The Art student can only save his own data. He can only view (read) the Art Professor's class material (ProfArt101) but he cannot change or delete it (write/delete privileges).

The Art Professor will have access to his own class (ProfArt101) and will also be able to access his student's data in his art class (StudentArt101). The Art Professor will have full read/write/delete privileges for his student's data and for his own art class.

Also, in order for both parties to share and access art from the Art Collection, the User Manager must authenticate both parties. The User Manager uses the login groups group name and code key to authenticate against a collection. Once this is authenticated, all groups that are associated with that group's profile are allowed access to that collection. Any user group in the Collection Manager is a login group.

The following provides a diagram of Example 1):

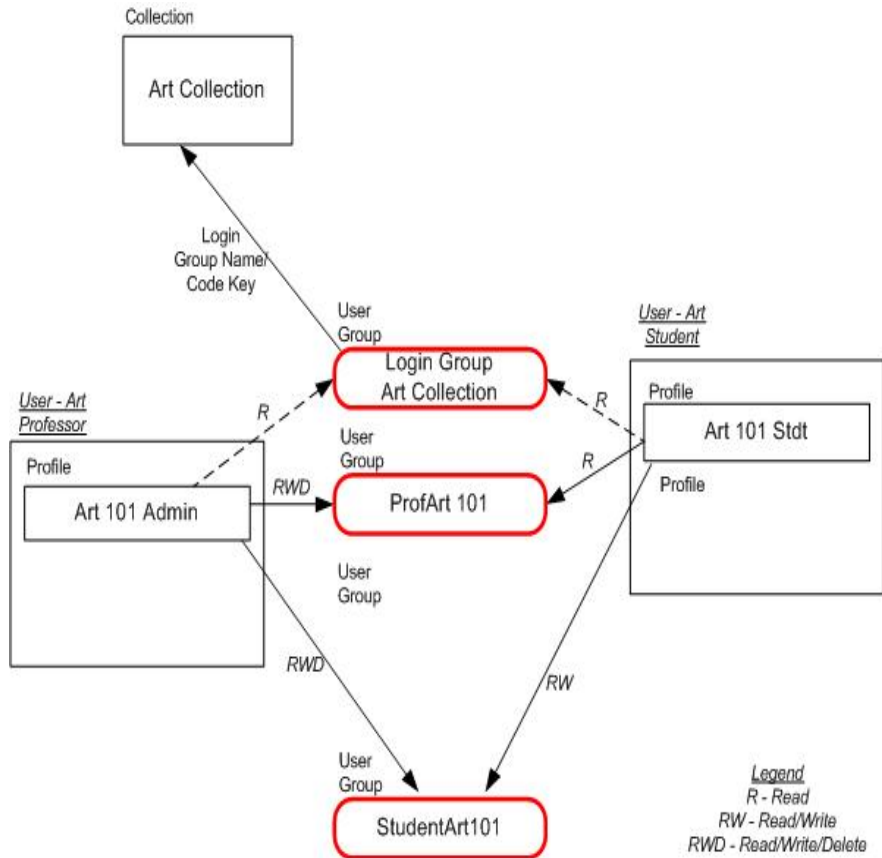


Figure 15 - Multiple User Groups Sharing Single Collection

Note: The dashed-line arrows indicate access to the Art Collection Login Groups.

Multiple User Groups Accessing Multiple Collections

In this second example, we have two collections available to an Art Professor and an Art Student at a certain university; these collections are the Art Collection and the History Collection. The Art collection is a collection that is composed of many different types of art and objects, and the History Collection is composed of historical maps.

In this example, the Art department at this university only offers one class (ProfArt101), and the History department only offers one class (ProfHist101). These classes access data from the Art and History collection. The Art Professor is teaching art (ProfArt101) to his Art Student (StudentArt101) but will occasionally need to gain access to the history class, (ProfHist101). The Art Student needs access to the class

he is attending (ProfArt101) and will need access to the history class (ProfHist101) for researching maps.

The Art Professor will have access to his own class (ProfArt101) and the history class (ProfHist101), but can only save to his own class (ProfArt101). The Art Professor will also be able to access his student's data in his art class (StudentArt101) but not the student's data in the history class (StudentHist101). The Art Student can only save his own data (StudentArt101).

The same assumptions apply (as discussed in Example 1) for authenticating both parties to use the Art and History collections.

To set up either scenario in the Insight Administrator Tools, you will have to do the following in the User Manager:

- Create the Users, User Groups, User Profiles, and Collections.
- Assign Profiles to each User.
- Assign User Groups to each User Profile.
- Assign Collections to each User Group.

Note: When assigning the group(s) to the profile, set their privileges to Save only. You will want to allow the users to save to these groups but not delete from them.

The following provides a diagram of Example 2):

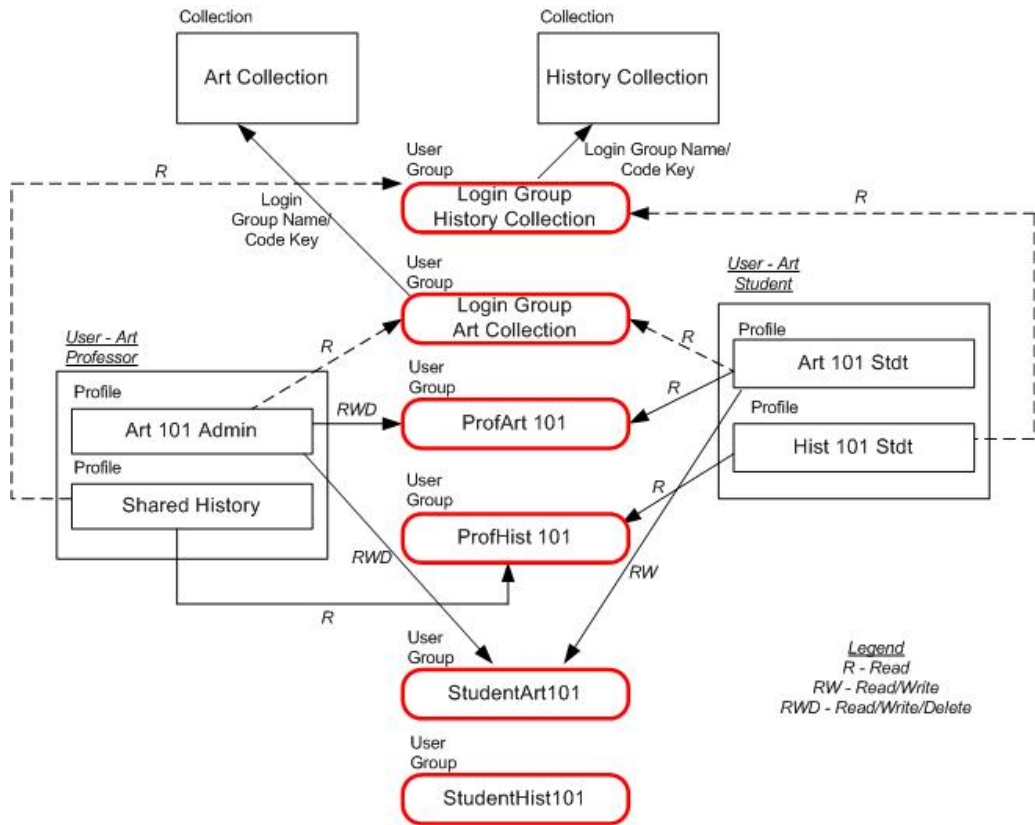


Figure 16 - Multiple User Groups Sharing Multiple Collections

Note: The dashed-line arrows indicate access to the Art and History Collection Login Groups.

Also, you will want to create a user who will assume an administrator role over all of the groups in both collections. The administrator will be able to view all groups in both collections, and will have full save and delete privileges.

To set up the administrator role, a new group named *administrator* needs to be created. you will need to create a profile for this group and assign all of the groups in both collections to that profile as well as their own group. The administrator will then need to create a user named administrator in the users folder, and assign the appropriate profile to him or her. By creating the administrator group in this fashion, the administrator will be able to oversee and control all groups in both collections.

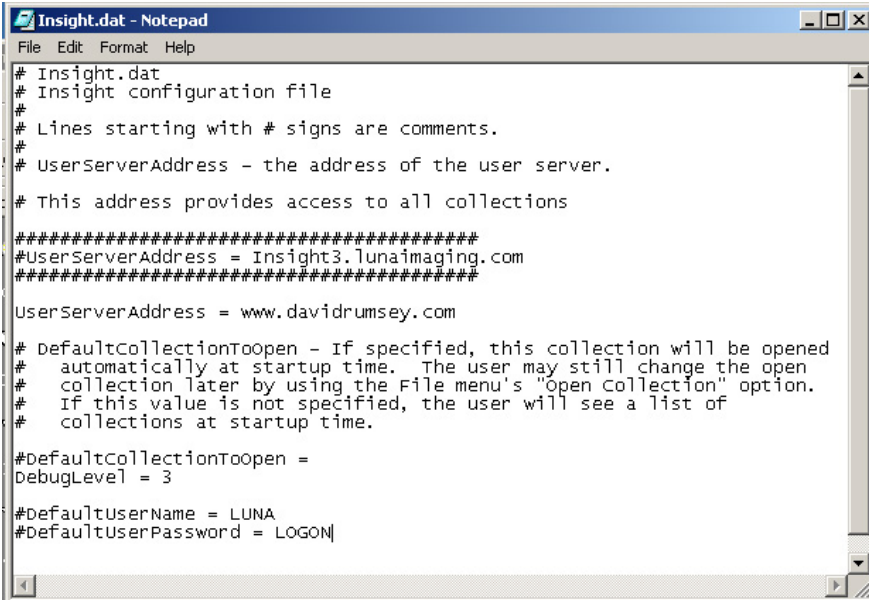
Automatic Log-On to Insight

The purpose of automatically logging on to Insight is to allow users to avoid having to enter the username and password every time they log on to access an Insight collection. Automatic log-on enables the user(s) to select a collection by bypassing the log-on screen.

Note: This means that anyone who has access to a system that has automatic log-on initiated is granted access to a collection, regardless if they know the appropriate username/password or not.

You must install a functioning version of Insight JVA in order to set the automatic log-on. To set automatic log-on for your Insight collection, follow these instructions:

1. Locate the file named `Insight.dat`. This file is located where you saved Insight.
2. Open the `Insight.dat` file using Notepad or any other text editor of your choice. You will see the following file:



```

Insight.dat - Notepad
File Edit Format Help
# Insight.dat
# Insight configuration file
#
# Lines starting with # signs are comments.
#
# UserServerAddress - the address of the user server.
# This address provides access to all collections
#####
#UserServerAddress = Insight3.lunaimaging.com
#####
UserServerAddress = www.davidrumsey.com

# DefaultCollectionToopen - If specified, this collection will be opened
# automatically at startup time. The user may still change the open
# collection later by using the File menu's "Open Collection" option.
# If this value is not specified, the user will see a list of
# collections at startup time.

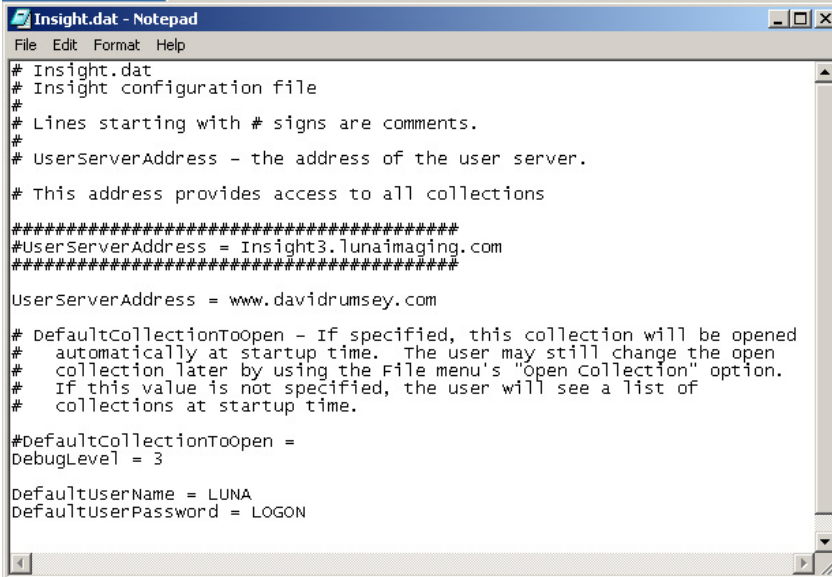
#DefaultCollectionToopen =
DebugLevel = 3

#DefaultUserName = LUNA
#DefaultUserPassword = LOGON|

```

Figure 17 – Code for Manual Log-On in `Insight.dat` File

3. Before you make any changes, you may want to create a copy or backup of your Insight.dat file for future reference. Remove the # signs from the front of the DefaultUserName and DefaultUserPassword. Be sure you do not remove any other # signs other than the ones instructed.
4. Once you have removed the # signs from the DefaultUserName and DefaultUserPassword, you will see the file below:



```

Insight.dat
Insight configuration file
# Lines starting with # signs are comments.
#
# UserServerAddress - the address of the user server.
# This address provides access to all collections
#####
#UserServerAddress = Insight3.lunaimaging.com
#####
UserServerAddress = www.davidrumsey.com

# DefaultCollectionToopen - If specified, this collection will be opened
# automatically at startup time. The user may still change the open
# collection later by using the File menu's "Open Collection" option.
# If this value is not specified, the user will see a list of
# collections at startup time.

#DefaultCollectionToopen =
DebugLevel = 3

DefaultUserName = LUNA
DefaultUserPassword = LOGON

```

Figure 18 - Code for Auto Log-On in Insight.dat File

5. Save the changes you made to the Insight.dat file.

Now, you should be able to automatically log on to your Insight collection when it is launched. If you would like to disable automatic log-on, simply replace the # signs in front of DefaultUserName and DefaultUserPassword.

Creating and Managing Collections

A collection manager enables you (an administrator) to define how data is accessed, displayed, and searched within Insight. These tools allow the construction and maintenance of Insight collections.



Figure 19 - Collection Manager Components

The following are the Collection Manager components:

Admin Accounts

The Admin Accounts function enables you, the Insight Administrator, to grant access rights and privileges to work within the Insight Admin Tools for the selected collection.

Collection Configuration

Collection Configuration is a place where you can change the properties of a collection. This includes the look and feel of Insight, location of help files, descriptions of the collection and various other settings that help to personalize your version of Insight.

Profiles

Profiles dictate a user's functional privileges for a collection during an Insight JVA or a browser Insight session.

When a profile is assigned during log-in, the corresponding characteristics will govern access permissions to functions such as HTML export, annotation creation, multi-view image authoring, as well as other features.

Connection Pools

The Connection Pools control the simultaneous connections between Insight clients and a collection server. This can be used to manage the load to your server.

For example: If you wanted to share your collection with another organization but were concerned that by doing so you would overburden your server, you could restrict the external organization to their own connection pool.

User Groups

The User Groups console permits administrators to create, modify, and delete Insight User Groups.

The User Groups contained in the Collection Manager are a special type of user group that have a direct relationship to the *Login Group*. The Login Group is chosen in the User Profile located in the User Manager.

These User Groups act as admission tickets to a collection and determine the access and connection privileges. During authentication, the client displays its credentials to the collection server using the User Group Names and Code Keys assigned to it by the User Server. If the User Group Names and Code Keys are identical, the server then checks to ensure the client is within the specified IP range. If all these criteria are met, the user is granted access to the collection.

Media Groups

Media Groups allow you to rename, insert, and delete media from Insight Media groups. Media can include images, sound, video, and QuickTime VR (v3.5) files.

Media Groups control collection level groups. Everyone using the collection can see a collection level group if they are not restricted to a specific User Group.

These types of groups are stored in your databases and not as files. You should limit the creation to important subject matter or subgroups that you would like to highlight.

Collection Level groups are composed of pointers (image IDs) that reference media contained in the IRIImageFiles table in the Insight database.

Fields

The managing of fields contained in your collection is handled by using this tool. This is where you define the characteristics of each field that will be used in your Insight collection.

When you define fields, it must be used in conjunction with Field Groups and Field Standards to display information in Insight. The fields portion of this important trio relates to the source properties of a field (the table it lives in, the join path to the table, the delimiter used when multiple values are present, and so forth).

Note: You will see several properties repeated between the *Fields* setting and the *Fields Standard* field setting. Make sure you set them the same way to ensure consistency throughout the application. This is because browser Insight does not use the field standards but still must display the data. In other words, browser Insight does not support cross collection searches but uses the settings in the Fields area for displaying the data.

Field Groups

Field Groups enable you to associate multiple fields to display together in the Insight data window. Also, the display name for each field name is set in Field Groups.

For example: An artist, artist dates and nationality coming from separate fields can be grouped together using Field Groups. If there is more than one artist displayed, all the grouping information for the first will be displayed before the second artist is displayed.

Note: The defined Field Groups must be used in conjunction with Fields and Field Standards to display the information in Insight.

Field Standards

Field Standards enable you to manage the availability of various field standards in Insight and the characteristics of those standards.

Insight uses field standards to relate disparate data sources and present the data in relation to these standards.

When a collection is set up there are several standards already defined in Insight. You would then create a local standard for the data and relate it to a published standard. In general, we relate all standards to CDWA. By relating our information to this granular standard, we are able to cross relate most any standard.

Multi-Page Document

The Multi-Page Template allow users to define a hierarchical structure and to generate multiple entries into the document's database table. Instead of creating multi-page definitions individually for each document, this template enables users to create multiple documents based on user's selected parameters.

The Multi-Page Document Creation dialog enables the Administrator to either create a brand new, single multi-page document or edit an existing single, multi-page document from the Multi-Page Document Template (all the fields will be propagated with existing data from the Multi-Page Template).

Manage Field Standards

Manage Field Standard Relations allows you to define what data fields relate to other data fields across field standards.

This is accomplished by mapping each standard and collection field to a master mapping standard field, such as CDWA. Insight supports the mapping of multiple collection fields to one mapping standard field, or visa versa. This will ensure that one field called Creator, for example, will contain the same data in another standard for a field called Artist.

Note: This utility is not obvious to access! You must place your cursor on the **Field Standards** folder and click the right mouse button to get the context menu. You can then access **Manage Field Standards Relations**.

Tables

The table component contains a list of table names in the database server that Insight will use in a specific collection.

You will need to designate the *primary objects table*. For a flat file database, it is the main table. In a relational database, this can vary. Most of the time, it is where the core object information resides; but, this is not always the case. In some data structures there is unique information stored at the image level of the data structure and the collection owner needs this information to be displayed for each distinct image. In a case like this, the primary objects table may be at the image level.

Edit Joins

The Edit Joins window maps each table onto the primary object table.

Stop List

Insight provides a "stop list" for the indexing of terms. This table will contain a list of terms that should not be indexed. Some examples of stop words are "a", "an", "and", "the", "of".

This list is used during indexing to check every term before creating it as a new term.

LPS Data

The LPS (Logical Path Segment) refers to the subdirectory structure of images and refers to the intermediate directories between the SPS and individual media files.

Many directory structures can be accommodated within Insight. Some Insight installations opt to create directories according to internal directory structure conventions. The LPS Data tool permits you to create and manage logical path segments for a particular collection.

SPS Data

The SPS (Storage Path Segment) refers to the machine on which the images, accessed in Insight, reside. This is a partial URL to the media files stored on the image server. To make a complete URL, the system combines the following:

Storage Path Segment/Logical Path Segment/File Name

For example:

(<http://Insight.lunaimaging.com/dalton/size4/> + Disc0004/ + 00044001.jpg)

An SPS is required for each resolution (image size) and each media type that will be accessed using Insight.

Storage path segments can be used to direct clients to different locations for image retrieval. For instance your institution has an Insight collection that needs to be shared in the US and Europe. Your European clients are seeing a delay when looking at images. This can be resolved by placing a duplicate set of images on a server in Europe and making new SPS references for the European clients to use.

Measurement Tool

The Measurement Tool specifies the actual dimensions or numeric fields (height and width values) of an object (actual image or contents within an image). It is a tool used to configure settings for images in Insight Workspace as well as a tool to view default image settings from Insight JVA.

Maximum ID

The Maximum ID option is a temporary values table with unique IDs for media groups. The values are system generated and always increment by 1 whenever a new media group is created. This option enables you to change the sequence of system generated IDs.

InScribe Settings

For information regarding Inscribe, refer to the *InScribe Configuration Manual*.

Collection Editor

The Collection Editor contains three key administrative tools: Invoke Indexer, Media Batches, and the Map Objects-to-Media Tool.

Invoke Indexer

The purpose of the Insight Indexer is to transform the source information into an inverted index. Insight will then use the information stored in these inverted indexes as a resource for search and display.

Insight's inverted index store every value for every field in two columns, one for text values and one for numeric values. A reference is also generated that stores the original source column. This is considered *value indexing*.

Another portion of the indexer extracts all whole words form all specified fields. Insight uses these for keyword searches. We refer to this as *term indexing*.

Also, the Indexer is used to process hierarchies and fuzzy date information.

Media Batches

The purpose of the Media Batches utility is to automate the process of generating derivative images and media files from batches of source images.

Map Objects-to-Media

The Map Objects-to-Media mapping tool provides you with an interface through which the relationship between media files and descriptive records can be defined. The interface allows you to search through the media files and descriptive object records of a collection to create, modify, and delete the relations between object records and media files.

Using the Collection Manager

You can use the features described in this section to control collection access, configure the system for a collection, and manage a collection.

Section 1: Creating and Configuring a Collection

In order to manage and process media and data within a collection, Insight Admin Tools enable you to randomly select whichever component within a collection that you want to work on first. However, it is highly suggested that initially you accomplish the following in the order given below until you are thoroughly familiar with the Insight Admin Tools set.

1. Register a new Collection Manager
2. Create a new Admin Account (you can either create it here or in the User Manager, refer to *Create a New Admin Account in Chapter 3*)
3. Create a Media Group
4. Define a Collection Configuration
5. Create and assign a Profile
6. Define a Connection Pool
7. Create a User Group
8. Create a Table
9. Edit Joins and Stop Lists
10. Create Field Groups, Fields, and Field Standards
11. Apply standards mapping (field standards relations)
12. Reference SPS and LPS data
13. Edit a collection (Collection Editor)

Note: If you only have Collection Editor rights and nothing else, you will only be able to access the items in the Collection Editor folder (Invoke Indexer, Media Batches, and Map-Objects-to-Media). Also, you can skip this section (*Chapter 3, Section 1*) and go directly to *Building a Collection* in *Section 2* of this chapter.

Register a New Collection Manager

Follow the steps below to register a new Collection Manager:

1. Right click on the **Collection Manager** folder. A Register New popup appears.
2. Click on the popup. A *Register New Collection Manager* dialog opens.

Figure 20 - Registering a New Collection Manager

3. Select *Browse for Config File*. Navigate to your local server where Insight is running. Locate and open the **InsightUserServer.dat** file.
4. Select *Load config file values*. This reads the configuration file and the **InsightBackend.dat** file and places the values into the form.
5. Provide your Collection Manager server name in the Collection Manager Name field. This is usually your machine name or IP address (for example, Zeus).
6. The Connect String can vary depending on the database connector that you are using. Insight supports Sprinta 2000 JDBC driver for Microsoft SQL server database and Oracle JDBC driver for Oracle database. The JDBC connect strings are:

Sprinta 2000 and MS SQL Server 2000:

`www.MyCollege.edu:1433?database=InsightUserServer&sql7=true&user=insight&password=insight`

Format: `IP:Port?DatabaseName&sql7=true&user=dbUserName&password=dbPassword`

Sprinta 2000 and MS SQL Server 7.0:

www.MyCollege.edu?database=InsightUserServer&sql7=true&user=insight&password=insight

Format: IP?DatabaseName&sql7=true&user=dbUserName&password=dbPassword

Oracle 8i and 9i

@www,MyCollege.edu:1521:InsightUserServer

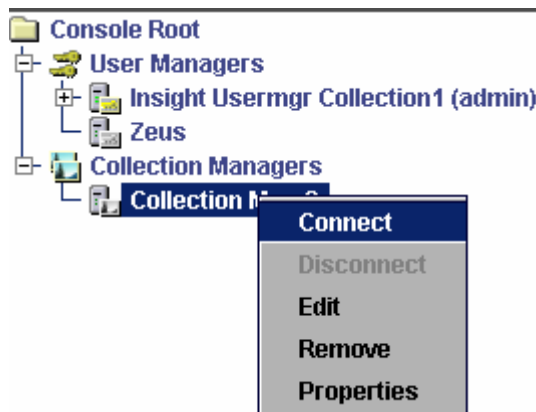
Format: @Domain or IP:Port:Database Name

7. Enter the Database Username. This is the identifier used to log into the database.
8. Enter the Database Password. The password is needed to log into the database.
9. Select a Query Mode, either Entry Level SQL 92 or Intermediate Level SQL 92 (if your database supports SQL 92).
 - Entry Level SQL 92 should be selected for databases that do not support inner joins, for example, Oracle 8i.
 - Intermediate Level SQL 92 should be selected for databases that support inner joins.

10. Enter a Database Connector. Choose from three connector types: JDBC, RDO, or ADO. JDBC should be selected in the majority of cases.
11. Enter JDBC Driver Name. This connector is comprised of three parts: (JDBC Driver Name + JDBC URL Prefix + Connect String). Examples are:
Sprinta 2000 JDBC driver for MS SQL Server: com.inet.tds.TdsDriver
Oracle JDBC Driver for Oracle 8i and 9i: oracle.jdbc.driver.OracleDriver.
12. Enter the JDBC URL Prefix. Examples are:
Sprinta 2000 JDBC for MS SQL Server – jdbc:inetdae7
Oracle JDBC Driver for Oracle – jdbc.oracle:thin
13. Press the Save button to save the above configuration.

Collection Manager Properties

After registering a new Collection Server, you may need to change the properties for the Collection Manager. The properties of a Collection Manager may be edited by right clicking on **Insight Collection Manager (administrator)** from the navigation tree below or you can edit the InsightServer.dat file. This .dat file is a text file that can be edited by using any text editor (such as, MS Notepad). The InsightServer.dat file is located inside your Collection Manager folder. An example of an InsightServer.dat file will be shown later.



Select *Properties*. The following dialog appears:

Connection Information

Collection Manager Name: Short Name:

JVA Client Port:

Timeout Minutes: User Server Update Interval (minutes):

Allow collection sort max:

Debug Settings

Log file name: Debug Level:

Database Connection Settings

Database Connect String:

MS Access Mode Lower Case Mode

Use DISTINCT keyword Use DISTINCT in SQL COUNT

Use SQL COUNT to check speed-search threshold

Query Mode:

Character Wildcard: Left Escape Delimiter:

String Wildcard: Right Escape Delimiter:

Media Info Table Name:

Optional Database Configuration

Check boxes on the right to enable overriding of default values.

Database Connector:

JDBC Driver Name:

JDBC URL Prefix:

Username:

Password:

Figure 21 - Collection Manager Properties (1 of 2)

Connection Information

1. *Collection Manager Name* - Input the formal name of this collection server.
2. *Short Name* - Provide a 3-4 letter name for the collection. This will show in the console display to help identify the collection.

3. *JVA Client Port*- Provide a numeric value for communications. In general, set these between 2900-3100, but you can use any open port.
4. *Timeout Minutes*- Set this number to monitor sessions. Setting this to 0 will not keep any session alive if a user is inactive. If this is set to 10 minutes and a user breaks out of the program without properly closing the application, the user will not be able to select the collection again until the timeout has expired.
5. *User Server Update Interval Minutes*- Set this to how often you need the User Groups to update or refresh the data.

Debug Settings:

1. *Log file name*- Provide a name for the Log File. This file will contain debug output for the Collection Manager.
2. *Debug Level*- Select a debug level. By turning debug on, you will be able to see the data which will help you to correct configuration errors in Insight. This data will display on the Admin Tools console and also print to a file.

Database Connection Settings:

Database Connect String- Refer to *Chapter 1, Setting Up a Connection* in this manual.

1. *MS Access Mode*- Check this box to optimize queries for MS Access.
2. *Lower Case Mode*- Check this box to alleviate case sensitivity. Some databases support lower case mode, others do not. If you are using Oracle on UNIX, check this box; if you are using anything else, do not check this box.
3. *DISTINCT keyword*- Some databases do not support the DISTINCT keyword in SQL calls. Set this for your database.
4. *DISTINCT in SQL COUNT*- Some databases do not support the DISTINCT keyword in SQL calls. Set this for your database. By using this you will see a marked improvement in the Speed search function.
5. *SQL COUNT* - Use to check speed-search threshold- By using this you will see a marked improvement in the Speed search function.
6. *Query Mode*- Some databases do not fully support the SQL 92 standard. Choose the appropriate mode for your database.
MSSQL & Oracle 9i- Intermediate level SQL 92 (inner join support)
Oracle8i- Entry level SQL 92 (no inner join support)
7. *Character Wildcard*- Each database may use different characters to perform wildcard searches. Example: MS SQL- “_”
8. *Left Escape Delimiter*- Each database may use different characters to escape special reserved characters. Examples: For MS SQL leave the left delimiter blank and for Oracle, set the left delimiter to back slash (\).
9. String Wildcard - Example: MS SQL & Oracle – “%”
10. *Right Escape Delimiter*- Each database may use different characters to escape special reserved characters. Examples: For MS SQL leave the right delimiter blank and for Oracle, set the right delimiter to blank.

The information entered into this dialog panel will be saved to the configuration file InsightServer.dat.

EXAMPLE OF INSIGHTSERVER.DAT FILE

Below are database connection settings found in a sample InsightServer.dat file. Note that this file has been stripped of all other settings except for the section that pertains to the database connection settings. When you open your own .dat file, you will see the whole file and not just this section.

```
# DatabaseConnect - the database connect string for the Insight Smart Server. The
# Insight ADO connector does not expect "DSN=" to be at the front of a DSN, while
# the RDO connector does. Note that in this configuration file, every single \
# needs to be typed as \\.
DatabaseConnect = @insight.lib.stateu.edu\;1531\;INSIGHT
```

```
# MSAccessMode - Setting this value to 1 indicates that the DB should be optimized
# for MS Access. Setting this value to 0 indicates that the DB should not be
# optimized.
MSAccessMode = 0
```

```
# UseLowerCaseCommand - Setting this value to 1 indicates that LOWER() command
# should be used when generating search queries. The default is 0.
UseLowerCaseCommand = 1
```

```
# UseDistinctKeyword - Setting this value to 1 indicates that the use of the
# DISTINCT keywords is authorized.
UseDistinctKeyword = 1
```

```
# UseDistinctInCount - Setting this value to 1 indicates that the use of the
# DISTINCT keyword within a COUNT command is authorized.
UseDistinctInCount = 1
```

UseSqlCountToCheckThreshold - When generating a unique list, setting this value
to 1 indicates that the Insight backend should use the SQL COUNT command to
determine if the number of values will violate the threshold constraint. The
default is on.

UseSqlCountToCheckThreshold = 1

DatabaseQueryMode - The level of SQL 92 compliance that the host database
implements. 0 = ENTRY_LEVEL_SQL_92, (Oracle)
INTERMEDIATE_LEVEL_SQL_92 = 1 (MS SQL)

DatabaseQueryMode = 1

CharacterWildcard, StringWildcard - The single character and string wildcard
symbols used for the database. The defaults are: "%" for the string wildcard and
"_" for the single character wildcard. NOTE: For Access DB -> Set
CharacterWildcard to "?" and StringWildcard to "*"

CharacterWildcard = _

StringWildcard = %

LeftEscapeDelimiter, RightEscapeDelimiter - The left and right delimiter to use
for escaping special reserved characters. The defaults are: "[" for the left
escape delimiter and "]" for the right escape delimiter. Note: For Oracle DB ->
Set LeftEscapeDelimiter to "\" and RightEscapeDelimiter to "" (empty string).
Also note: The use of these delimiters can be "turned off" by simply including
the property but not assigning it to any value. i.e. Setting the value of each to
"" (empty string).

LeftEscapeDelimiter = \

RightEscapeDelimiter =

EXAMPLES OF DATABASE CONNECTION SETTINGS FOR MS SQL AND ORACLE

Description	MS SQL	Oracle
Database Connect String	<p>Sprinta 2000 & MS SQL Server 2000: www.MyCollege.edu:1433?database=InsightUserServer&sql7=true&user=insight&password=insight</p> <p>Format: IP:Port?DatabaseName&sql7=true&user=dbUserName&password=dbPassword</p> <p>Sprinta2000 and MS SQL Server 7.0: www.MyCollege.edu?database=InsightUserServer&sql7=true&user=insight&password=insight</p> <p>Format: IP?DatabaseName&sql7=true&user=dbUserName&password=dbPassword</p>	<p>Oracle 8i and 9i @www.MyCollege.edu:1521:InsightUserServer</p> <p>Format:@Domain or IP:Port:Database Name</p>
Lower Case Mode	Do not check box.	Check this box.
Query Mode	Intermediate Level SQL 92 (inner join support) = 1	Oracle 8i, 9i– Entry level SQL 92 (no inner join support) = 0
Character Wildcard	Single character = “_”	Single character = “?”
	String character= “%”	String character = “*”
Left Escape Delimiter	Set to empty	Back slash (\)
Right Escape Delimiter	Set to empty	Set to empty

Optional Database Configuration: This section is a continuation of the latter part of the Edit Properties File dialog, (Collection Manager Properties 1 of 2) from page 47. Refer to *Chapter 1, Setting Up a Connection*, in this manual.

Edit Collection Manager Properties (Continued)

The next graphic is a continuation of the Collection Manager Properties dialog, part 2 of 2.

Figure 22 - Collection Manager Properties (2 of 2)

File Locations:

1. *Presentation File Path* - Location where the presentations are stored. Typically these are stored below the Collection Manager's folder.
2. *Multi-View Image File Path* - Location where the Multi-Views are stored. Typically these are stored below the Collection Manager's folder.

3. *Link File Path* - Location where the Link Files are stored. Typically these are stored below the Collection Manager's folder.
4. *Search Query Log File Path* - This log file tracks queries and result counts.
5. *Fuzzy Date Help File Path* - Location of the help and filename.
6. *Export Log FileName* -

Auto-Updating Configuration:

1. *Outdated Client Message* - This message is displayed to the user if the Client can not use the updated Jar File.
2. *Client URL* - Location of the new client.
3. *JAR File URL* - Location of the updated client jar.

User Server Configuration: A Collection Manager can launch a User Manager at startup. The following are where you set this up. Generally we recommend separating these two items.

1. *Run User Server*- Run with Collection Manager.
2. *Connect String*- Enter the User Manager's connect string.

UCB Configuration: For University of California Berkley use only. This currently is not in use and will be removed after version 3.5.

InScribe Configuration

1. *InScribe Commit Changes (minutes)* –Determines how often InScribe commit changes the source data tables.
2. *InScribe Help File URL* – This point to the InScribe Help files.
3. *File Menu Help File URL* – This points to the InScribe Help files.

Define a Media Group

Media Groups allow you to rename, insert, and delete media from Insight groups. Media can include images, sound, video, and QuickTime VR files.

Insight allows the organization of images into image group types. The Administration console supports three types of media groups: Collection groups, Permanent groups, and Temporary groups. Permanent groups are created and modified by administrators. Temporary groups are created and modified by Insight.

Clicking the Media Groups folder on the navigation tree will display all media groups and their corresponding field values. After making the desired edits, click Save to apply the changes. Click Cancel to close the Media Group window, ignore any edits made, and return to the main dialog in the Media Group.

Follow the steps below to create or add a Media Group:

Right click on the **Media Group** folder in the navigation tree and select New. The *Edit Media Group* dialog appears:

Figure 23 - Edit a Media Group

1. *Group Name*- Enter a name for this media group.
2. *Group Type*- Select a group type for your media group. There are three group types:
 - *Temporary* - A system generated group (these are deleted by the system unless the client crashes during use). You may want to periodically clean or delete these groups.
 - *Permanent* - User generated groups that are saved at the collection level. All user can see these groups.
 - *Collection* - A special group that is read only and is used as the collection group.
3. *Parent Permanent Group* - Temporary groups. This identifies the source of the temporary group.
4. *Parent Virtual Collection* - Name of the virtual collection (NA if this is not a virtual collection group).

5. *Available Media* - The Image ID's of the available Media. All available media for your collection will be given in this column.
6. *Constituent Media* - The image IDs of the media already assigned to this group.

EDIT MEDIA GROUPS

1. Click the Media Groups folder on the navigation tree to display all the media groups and their corresponding field values. Double-click the media group you need to edit.
2. The Edit Media Group dialog appears. Make your changes. If you would like to delete or remove media from an already created group, select the media IDs to delete from the Constituent Media column and click the left << arrow button. This will remove the selected media from the group and place the IDs back into the Available Media column.
3. Click Save to apply your changes.

DELETE MEDIA GROUPS

1. Click the Media Groups folder on the navigation tree to display all the media groups and their corresponding field values.
2. Select the media group you would like to delete and right click the mouse button and select Delete from the drop-down menu.
3. You will be asked if you are sure you want to delete the selected group. If you are sure, click Yes; if you are not sure, click No.

Define a Collection Profile

A User Group belongs to a profile that dictate a user's functional privileges to a collection during an Insight JVA or browser Insight session.

When a profile is assigned during log in, the corresponding characteristics govern access permissions to functions such as HTML export, annotation creation, multi-view image authoring, as well as other features.

Follow the steps below to define or create a new Profile:

1. Double click the **Profiles** folder. All available profiles are visible.

- Right click on any existing profile and select New; or if there are no existing profiles, select New when you right click on the Profiles folder. The *Editing Profile* panel appears:

Figure 24 - Edit Collection Profile

- Display Name* - Provide a name for the profile.
- Allow user to save a group* - Check this box to save a collection level group (everyone can access).
- Allow user to delete a group* - Check this box to delete a collection level group.
- SPS Number* - A numeric reference to the SPS number. (Refer to *Chapter 4, Section 3: Managing Media.*)
- Maximum export resolution* – Select a resolution size. The default value is set to 24576 pixels.
- Maximum export presentation resolution* - Defines the maximum presentation resolution that will be presented to a user with the associated profile. The resolution range from “640 x 480” up to “1600 x 1200.” The default is set to 1600 x 1200.
- Allow data editing* - V2 Data Editor (flat files only).
- Allow vocabulary editing* - V2 Data Editor (flat files only).

11. *Maximum viewable resolution* – Select a resolution size. The default value is set to 24576 pixels.
12. *Allow exporting of HTML files* - The ability to use *Export as Html* in the print menu.
13. *Allow editing of image links* - Rights to edit image links (annotations, linked media, Weblinks).
14. *Allow editing of multi-views* - The rights to create, edit, and delete multi-view images.
15. *Allow editing of multi-page documents* - Version 3.5 or higher provides the rights to create, edit, and delete multi-page documents.

Note: By default, maximum export resolution is set to 24576 pixels and maximum viewable resolution is set at 24576 pixels. The default for export presentation resolution is 1600 x 1200.

Configure a Collection

The Collection Configuration dialog allows you to define the characteristics of a collection. This includes the look and feel of a collection. A number of the settings have default values and should generally be left alone. These will be identified with an asterisk (*).

Right click on **Collection Configuration** and select New. You will see the dialog panel below. It is shown in two graphics but it appears as one panel in Insight.

Follow the steps below to configure a collection:

Collection Information:

Figure 25 - Configure a Collection

1. *Institution ID*- This is a unique name for the institution. This is used in combination with CollectionID to distinguish between collections during cross collection searching.
2. *Collection ID*- (*) This is a unique number assigned to a collection. This number is used in many places within the Collection Manager.
3. *VC ID*- (*) A unique virtual collection ID. Set to NA if this is not a virtual collection.
4. *Collection Name* - The name that will be displayed identifying the collection.
5. *Short Description* - This is a short text description that will show when a user is changing between collections using the File/Open Collection function.
6. *Long Description URL* - Enter a URL to a web page defining the collection. This will show below the Short Description.
7. *Copyright Statement* – This feature can be toggled on or off by selecting (checking) or deselecting the *Force collection name display* checkbox. Enter a copyright statement and you will override the original 4 default thumbnails that you have previously set (refer to *Edit Browser Attributes* in this section) and replace them with the forced thumbnails from the collection in the copyright statement.

Collection Properties:

Collection Properties

Initial Activity: 1 - Search Menu

Initial Group Open: Insight VRA Read-Only

Display Artist Stories:

Large Thumbnail Threshold: 6

Drag Speed Coefficient: 2

Help Group: ging.com/v3_5help/help-group.html

Help Image: ging.com/v3_5help/help-image.html

Simultaneous IW Loads: 2

Simultaneous GW Loads: 5

Web Initiated JVA URL: /80/servlet/Deploy/InsightJVA/launch

Web Initiated JVA HTML Template: launch

Thumbnail Cache Profile ID: 1

Fast Scaling:

Language Code: en

Country Code: US

Force collection name display:

Edit Visual Attributes

Edit Browser Attributes

Save Cancel

Figure 25 - Continued

1. *Initial Activity* - There are two choices here: to display the search menu when the client is opened or not to display the search menu.
2. *Initial Group Open* - Choose the Image group that will be opened at startup.
3. *Read-Only* - (*) Whether or not the Initial Image group can be changed. This will only work if the initial group is not a collection group. (Refer to Section 1, *Define a Media Group* in Chapter 4).

4. *Display Artist Stories* - A version 2.2 feature and will only work under certain conditions. This feature will bring up an artist description if there is a ArtistID in the main table called Objects and will refer to a table called artiststory. If you require this feature please contact Luna Imaging.
5. *Large Thumbnail Threshold* - (*) This value determines when the large thumbnail navigator is invoked. Use 2-8 for the value.
6. *Drag Speed Coefficient* - (*) Should be left at 2.
7. *Help Group* - (*) A URL pointing to help for the Group Workspace.
8. *Help Image* - (*) A URL pointing to help for the Image Workspace.
9. *Simultaneous IW Loads* - (*) Determines how many threads are running at one time for the Image Workspace.
10. *Simultaneous GW Loads* - (*) Determines how many threads are running at one time for the Group Workspace.
11. *Web Initiated JVA URL* - This only applies to Insight Installations using Deploy Director. The "Web Initiated JVA URL" is used by the Web Initiated URL generation tool within the JVA client. The *Web Initiated JVA URL* indicates the base URL to which the launch parameters are appended;

e.g. "http://deploy.lunaimaging.com:8080/servlet/deploy/Insight/launch".

The *Web Initiated JVA URL* is the JVA counterpart of the "Remote Launch URL" found in the Browser Attributes section of the *Insight Installation and Configuration Manual*.

If you are using the Insight Launch Manager, the values located in both the *Web Initiated JVA URL* and "Remote Launch URL" will reference the base URL for the Insight Launch Manager.

Note: Do not include the ending "?" after the launch command, this is added programmatically during the URL generation. If the base URL is not specified, then the "create remote launch" option will not appear under the group menu in the JVA client.

12. *Web Initiated JVA HTML Template*- This is used to specify the HTML anchor template for the Web Initiated JVA URL. The template is used in the hyperlink code method of the JVA remote launch generation function. Use the macro "\$S1" to indicate the location in the template where the launch URL will be inserted, e.g.

Default MSSQL

```
<a
onFocus="this.blur()"href="javascript:iw=window.open('$S1','RedirectorLaunch
','height=300,width=500,x=' + ((screen.width-257) /2) + ',left=' +
((screen.width-257) /2) + ',y=' + ((screen.height-298) /2) + ',top=' +
((screen.height-257) /2) + '"); void(0);">[open in Insight™]</a>
```

 Default - Oracle - need to escape single quotes

```
<a
onFocus="this.blur()"href="javascript:iw=window.open("$S1","RedirectorLaunc
h","height=300,width=500,x=" + ((screen.width-257)/2) + ",left=" +
((screen.width-257)/2) + ",y=" + ((screen.height-298)/2) + ",top=" +
((screen.height-257)/2) + """); void(0);">[open in Insight™]</a>
```

This example would resolve to the bolded section is where the **\$S1** was inserted.

```
<a onFocus="this.blur()"
href="javascript:iw=window.open(http://deploy.lunaimaging.com:8080/servlet/deploy/Insight/launc
h?cid=3&iia=0&gwia=3&ig=Insight+VRA','RedirectorLaunch','height=300,width=500,x=' +
((screen.width-257)/2) + ',left=' + ((screen.width-257)/2) + ',y=' + ((screen.height-298)/2) + ',top=' +
((screen.height-257)/2) + ''"); void(0);">[open in Insight™]</a>
```

The Web Initiated URL generation function is composed of three parts:

1. the base URI (defined in Web Initiated JVA URL),
e.g. `http://deploy.lunaimaging.com/servlet/deploy/Insight/launch`;
2. the query string parameters, e.g. `?cid=3&iia=0&gwia=3&ig=Insight+VRA`;
3. the HTML template with a embedded runtime macro, e.g. `launch`.

1 + 2 = "Unformatted URL" value presented to the user during the Remote Launch URL generation. This URL string may be placed in a web browser's address bar to invoke the JVA client and load the requested collection content.

1 + 2 + 3 = "Hyperlink Code" value presented to the user during the Remote Launch URL generation. This string of HTML code may be placed in a text file to produce an HTML document.

Note: See Chapter 2, "Installation and Configuration for Insight Browser Server" in the *Insight Installation and Configuration Manual* for details on the "Remote Launch String parameters".

13. *Thumbnail Cache Profile ID* - Identifies which thumbnail cache is used for this collection.
14. *Create* - Enables you to create a new profile when a profile does not exist for the collection configuration you are editing. This button only appears if you do not have a profile for the collection configuration you are editing. If you have an existing profile, you will not see this button on this dialog.
15. *Fast Scaling* - (*) Determines how an image is scaled when an image is maximized in the image workspace and the source file is larger than the displayed size. This slows down the display time dramatically. We suggest leaving this on unless you require a smoother image.
16. *Language Code* - This item will only appear if the IRCollection Configuration Information table contains 'LanguageCode' columns.
17. *Country Code* - This item will only appear if the IRCollection Configuration Information table contains 'CountryCode' columns.

18. *Force collection name display* - This item enables you to toggle on/off the *Copyright Statement* (refer to **Collection Information**, *Copyright Statement*, step # 7 above).

EDIT VISUAL ATTRIBUTES

Select the Edit Visual Attributes button on the Collection Configuration dialog panel to access the following:

Figure 26 - Edit Visual Attributes

1. *Background Color* - Choose the color that surrounds the Background graphic.
2. *Background Image URL*- A URL pointing to the background graphic.
3. *Vertical Bar X*- Pixel location of the vertical bar in Insight (default 314).
4. *Horizontal Bar Y*- Pixel location of the horizontal bar in Insight (default 120).
5. *Default View Resolution*- The initial load resolution in the image workspace.

6. <i>Group Insets</i>	<i>Top</i>	(default 10)
	<i>Left</i>	(default 15)

7. <i>Group Spacing</i>	<i>H</i>	(default 15)
	<i>V</i>	(default 12)

8. *Inter-Window Spacing*- (default 16)

9. *Max. Windows*- (default 3)

10. <i>Min. Image Window</i>	<i>W</i>	(default 50)
	<i>H</i>	(default 50)

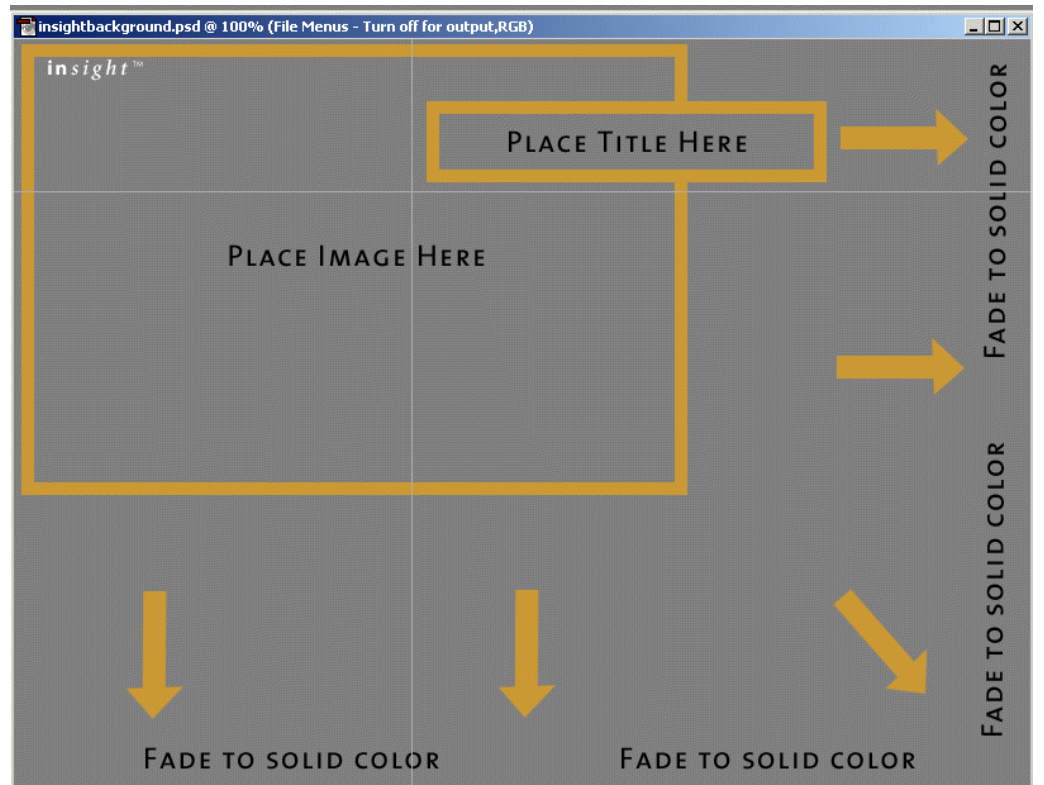
11. *Menu Position X*- (default 8)

12. *Mac Width Adjustment*- (default 18)

How to Create a Background Image for Insight JVA

- 1) Open provided template located in the utilities folder on both the 4.1 Upgrade and Standard CDs.
- 2) The image size has already been set to the desired output dimensions and should not be adjusted. (803 x 590 pixels)
- 3) The background image within Insight consists of the file that you will create in this exercise as well as a solid area of color that Insight fills in automatically depending on the monitor resolution of the end user. Because of this it is important that the background image created fades to a solid color on the right side and bottom of the image. This will insure a seamless transition irregardless of the monitor size of the end user. (Turn on the layer "Guidelines" in the image provided to see an illustration of this.)
- 4) Turn off and on the various layers in the provided file to become accustomed to the components of the final image. You can also turn on the layer "File Menus" to see where these areas lay within the final application. (Example is of file menus on a 1024x768 monitor resolution.)
- 5) Choose a solid color that you will be fading into. You can fill the layer "Background Color" with the color you chose.
- 6) If you desire an image in your background, you can paste one into the layer titled "Place image here."
- 7) Use Photoshop tools to blend the image with the background color. Refer to the "Guidelines" layer for direction.
- 8) Before saving, use the eyedropper tool to sample the background color you have chosen. Take note of the Red, Green, and Blue values within the color. You will need this information later when configuring Insight.
- 9) When a final design has been reached, you are now ready to save as a .gif file. Be sure that the "File Menus" and the "Guidelines" layer have been turned off.

Below is a sample to guide you.



EDIT BROWSER ATTRIBUTES

Click the *Edit Browser Attributes* button on the **Collection Configuration** dialog panel to access the Browser Insight Attributes dialog:

The screenshot shows a dialog box titled "MFA Giza Glass - Browser Insight Attributes". It contains the following fields and controls:

- Sort Fields:** Four dropdown menus, each currently set to "Accession".
- Thumbnail Fields:** Four dropdown menus, each currently set to "Accession".
- Remote Launch URL:** Text input field containing "http://192.190.2.101/insightredirector/insightr".
- Remote Launch Image:** Text input field containing "http://192.190.2.101/insightredirector/images,".
- Loading Background:** Text input field containing "http://192.190.2.101/Infocornell/images/loading".
- Menu Background:** Text input field containing "http://192.190.2.101/Infocornell/images/menu_".
- Progress On Background:** Text input field containing "http://192.190.2.101/Infocornell/images/progre\$".
- Progress Off Background:** Text input field containing "http://192.190.2.101/Infocornell/images/progre".
- Group Left Background:** Text input field containing "http://192.190.2.101/Infocornell/images/groupl".
- Group Left NS Background:** Text input field containing "http://192.190.2.101/Infocornell/images/groupl".
- Group Right Background:** Text input field containing "http://192.190.2.101/Infocornell/images/groupr".
- GW Bottom Background:** Text input field containing "http://192.190.2.101/Infocornell/images/gwbott".
- GW Top Background:** Text input field containing "http://192.190.2.101/Infocornell/images/gwtop_".
- Group Left HTML:** Text input field containing "http://192.190.2.101/Inf/groupleft.asp".
- Browser Security:** A checkbox that is checked.

At the bottom of the dialog are two buttons: "Save" and "Cancel".

Figure 27 - Edit Browser Insight Attributes

1. *Sort Fields*- Choose the sort fields for Browser Insight. Sort Fields enable you to define a default sort order for your collection in Browser Insight.
2. *Thumbnail Fields*- Choose the Thumbnail fields for Browser Insight. Thumbnail Fields allow you to select up to four thumbnail labels to display.

3. *Remote Launch URL*- Enter the base URL for the remote launch. (example: <http://www.lunaimaging.com/browserinsight/browserinsight?cmd=start>)
4. *Remote Launch Image*- This is a reference to a GIF used for the remote launch.
5. *Loading Background*- Specifies the URL of the splash screen background.
6. *Menu Background*- Specifies the URL of the background region of the menu.
7. *Progress On Background*- Specifies the URL of the loading progress bar (ON).
8. *Progress Off Background*- Specifies the URL of the loading progress bar (OFF).
9. *Group Left Background*- Specifies the URL of the left-center background region.
10. *Group Left NS Background*- Specifies the URL of the left-center background region (Netscape only).
11. *Group Right Background*- Specifies the URL of the right background region.
12. *GW Bottom Background*- Specifies the URL of the bottom background region.
13. *GW Top Background*- Specifies the URL of the top background region. (Collection Brand)
14. *Group Left HTML*- Specifies the URL of the groupleft.asp file. This file makes adjustments for browser types.

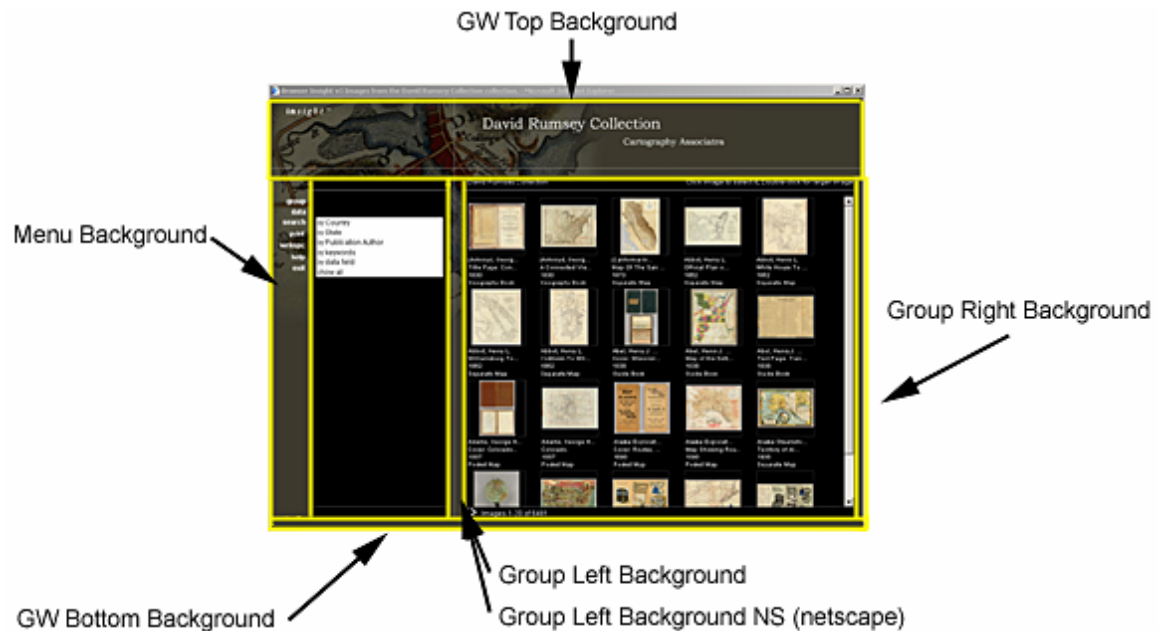


Figure 28 - Browser Insight Attributes

Provide a Connection Pool

Connection pools control the simultaneous connections between Insight clients and a collection server. This can be used to manage the load to your server.

Right click on **Connection Pool** and select New to access the Connection Pool dialog:

Figure 29 - Connection Pool

1. *Connection Pool Name*- Assign a name to this connection pool.
2. *Maximum Connections*- How many concurrent connections are allotted to this connection pool. Provide a numeric value.

Add a User Group to a Collection

User Groups: Any **Group Name** and **Code Key** combination entered in this form will be used as a Login Group. Collection Access is controlled through the combination of Group Name and Code Key and will need to be entered on the User Manager.

Follow the steps below to add a new User Group to the collection:

1. Right click on **User Groups** in the navigation tree and select New to access the *Edit User Group* dialog:

Figure 30 - Add User Group to Collection

2. *Group Name* - Provide the Name of this user group. The group name that is defined must be identical (case-sensitive) to the group name used in the User (Manager) server.
3. *Code Key* - Provide a unique password used between the User Manager and the Collection Manager. This field must match with the code key in the User (Manager) server setting.
4. *Connection Reserve* - This defines the reserved number of connections granted to this User Group and Code key combination.

Example: You have a connection pool that allows 10 users to access this collection at once. You have two User Groups set up, one for the teacher and one for the students. As a teacher you want to be guaranteed that you can access this collection. Your students are part of a user group that has the same connection pool. By setting the reserve in your user group to 1 the students pool is reduced to 9.

5. *IP Ranges* - This will restrict a User Group to a range of IP's. These can be separated in the following manner (192.168.0.1- 192.168.0.25, 192.168.0.135-192.168.0.255). The IP addresses allow connections to the collection server. Therefore, a user belonging to this group must have an IP address on their computer that is within the provided range, otherwise, they will not connect to the collection server.
6. *Browser IP Ranges* - The IP addresses allow connections to the collections via the browser. Therefore, a user belonging to this group must have an IP address on their computer that is within the provided range, otherwise, they will not connect to the browser.
7. *Connection Pool* - Click to expand the selection list and choose the appropriate connection pool.
8. *Profile* - Expand and select the available profiles in the list. If a profile you need is not listed, create a new profile (Refer to *Define a Collection Profile* in *Section 1* of this chapter).
9. Click *Save* to accept the setting.

Set Collection Level Privileges

Setting privileges for a collection can be configured in the User Groups and Profiles folders located in the navigation tree of the Collection Manager. User groups in the navigation tree set the entry point when connecting to the server. Within this group a user is assigned a profile which determines their rights to a collection.

Steps to set level of privileges in a collection:

1. A user group must first be created or edited. (Refer to *Add a User Group to a Collection* in *Section 1* of this chapter.)

- In a user group dialog, define the profile name that belongs to this group. Click this button ▾ for a list of available profiles. (Refer to *Define a Collection Profile* in *Section 1* of this chapter if you wish to create a new profile name and assign its privileges.)

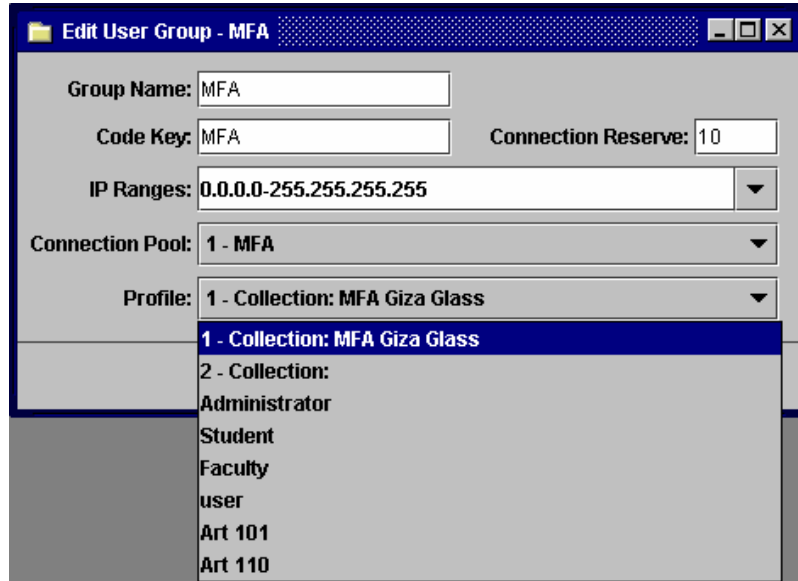


Figure 31 - Edit User Group

Within a User Group you can define a profile for this group in the list. This list is created in User Profile (as shown in the graphic below). This profile has the rights (privileges) that are checked.

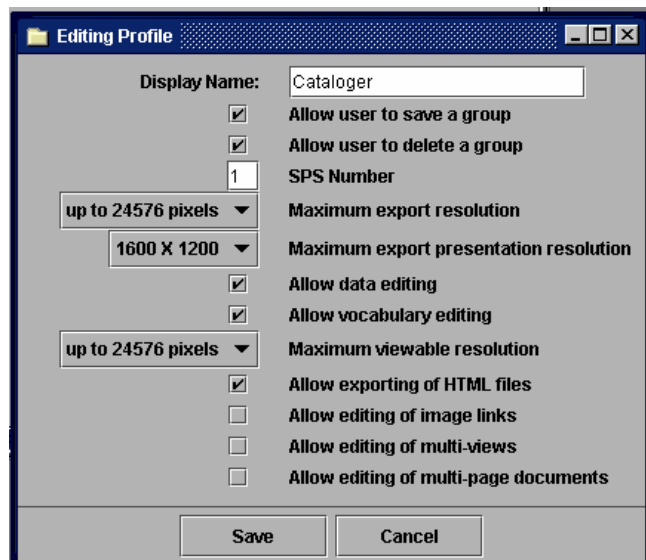


Figure 32 - Edit a Profile

- Click Save to update your settings.

Section 2: Building a Collection

You can use the features described in this section to be able to search a collection, display data, define data, map tables, and provide other configurations to help design a collection.

Create a Table

The table component contains a list of table names in the database server that Insight will use in a specific collection.

1. To add a new table in a collection, right mouse click on **Table** in the navigation tree, and select New.

Note: You can also add a new table by right clicking on any existing table and selecting New.

Figure 33 - Create a Table

2. *Table Name* – Table name must be the same name as in the database server.
3. *Hierarchy* – Check or enable this option, then select (if any) a hierarchy for this table.
4. *Primary Objects Table* – Enable only if other tables relate to this table as the main table. There is only one table in the entire collection that should have Primary Object Table enabled.
5. *Primary Object Key* – Enter a unique numeric identifier of the primary object table. The purpose of the Primary Object Key is to enable the Indexer to query its data and map any descriptive data in another table back to the primary object record.

Note: Only enter the primary object key if the primary objects table is enabled.

Here is an example of a Primary Object Key:

OBJECTID	AmicoID	RIP	RIP-SORT	RID	RIR	RIL
1	AGO_1013	Y	A	Full View	HasFormat	AGO_1013.TIF
2	AGO_1016.25	Y	A	Full view	HasFormat	AGO_1016.25.tif
3	AGO_1016.32	Y	A	Full view	HasFormat	AGO_1016.32.tif

Figure A

Define the main object table with a primary key "ObjectID"

ROWID	AmicoID	MCM	MED	MDV	MDU	MEQ
1	AGO_1013		Height	43.2	cm	
2	AGO_1686		Height	58.4	cm	
3	AGO_2403	Sheet	Height	23.4	cm	

Figure B

Define a relational table that contain descriptive data that relates back to Figure A.

When indexing, first map ObjectID to AmicoID; from AmicoID, it then relates to all other tables that have a relationship with this field and index any descriptive data that is related to a particular record.

6. Click Save to accept the settings and to update the collection.

Add Term to Stop List

Insight provides a *stop list* table for the indexing of terms. This table contains a list of terms that **should not** be indexed (see *Invoking Indexer* in *Section 2* of this chapter). Some examples of stop words are “a”, “an”, “and”, “the”, “of”. This list is used during indexing to check every term before creating it as a new term.

To add a term to the Stop List:

1. Right click on the **Stop List** folder in the navigation tree and click New.
2. When the Edit Stop Word dialog panel appears, enter the new term, and click Save. The new term will be omitted from the term list after the next term indexing has completed.



Figure 34 - Add Term to Stop List

Define a Join

Joins define how data are related from one table to another based on the join field name. Edit joins only applies to a collection that has more than one table. For collections that use a single table, this portion can be omitted.

CREATE A JOIN

Follow the steps below to create a Join:

1. Right click *Edit Joins* in the navigation tree.
2. In the Edit Joins dialog panel, right click *Add Join* on a table name. You can only edit a join if there are tables already joined together.

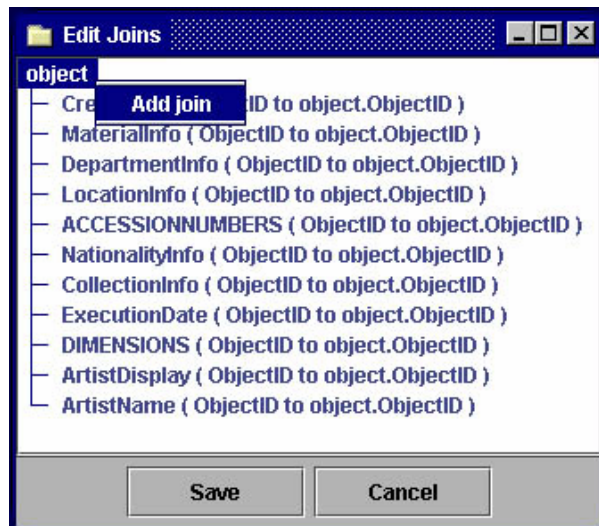


Figure 35 - Add a Join

3. Select a Start table name from the drop down list and enter the Start field name of the selected table.

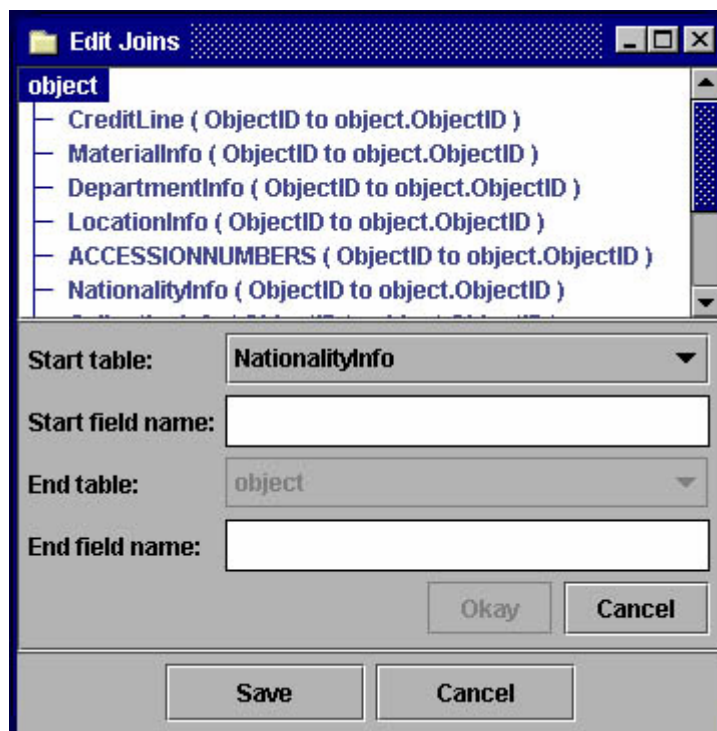


Figure 36 - Select Start Table Name

4. Select the End table name in the drop down list. This is the final table that completes the join function.

5. Select the End table field name which links the two tables together.
6. Click Save to update your joins.

DELETE A JOIN

1. Right click *Edit Joins* in the navigation tree.
2. In the Edit Joins dialog panel, right click *Delete join* on a table name. This deletes a join from the join list.
3. Click Save to update the join list.

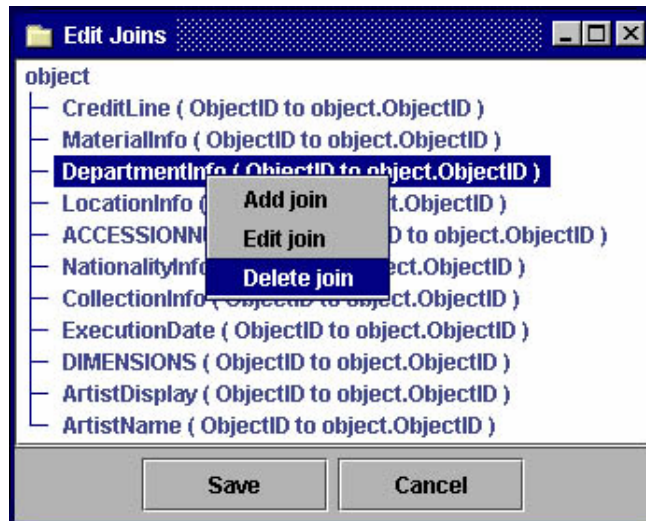


Figure 37 - Delete a Join

Examine Field Groups

Field groups enable Insight to group multiple data fields and display them in a group with a preferred group name. All fields in Insight must belong to a field group. If a group type is set to *Single* (Use Delimiter Type), then it will use a standard display order in Field Standards. If a field group is set to *Single* (Use Delimiter Type) and there is only one member field in the field group, then Insight can only use the delimiter type you defined in the field (for example, semicolon, colon, comma).

CHANGING PROPERTIES OF FIELD GROUPS

In order to change the properties for Field Groups, follow the steps below.

Highlight **Field Groups** in the navigation tree. Select the Field Group that you would like to edit in the dialog panel. Right click and select *Edit*. The Edit Field Group dialog panel appears.

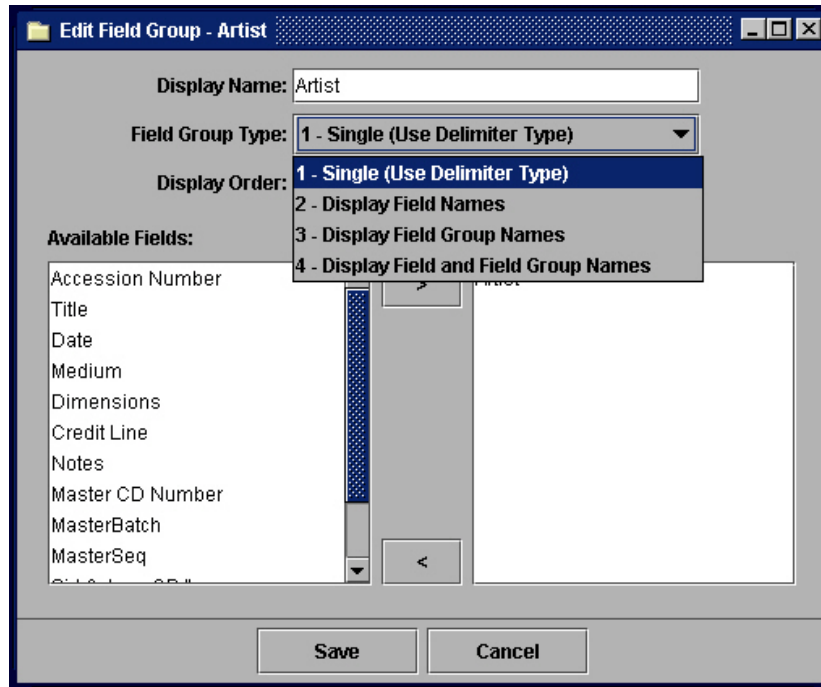


Figure 38 - Edit Field Group Using Single (Use Delimiter Type)

1. *Display Name* – Provide a name that you want to display for a field group. This name will be used when Field Group Type is set to *Display Field Name* or any other display except *Single (Use Delimiter Type)*.
2. *Field Group Type* – Select a Field Group Type. The pull-down list provides four group types and show how they display in Insight. The four group types are:
 - Single (Use Delimiter Type) –This setting is used for a **single field** that may have multiple repeating values. If you select more than one field, this delimiter will not work. Insight can only use the delimiter type you defined in the field.
 Example: Artist: Pablo Picasso; Georges Braque
 - Display Field Names – Displays each individual field name and group them together in one group section.
 Example: Artist: Pablo Picasso
 Artist Date: 1954
 Artist Nationality Spanish
 - Display Field Group Names – Use this field group name and its order position and display data in a group by a delimiter such as a semi-colon. The field only controls the delimiter if you have multiple values in the field.
 Example: Artist Info:
 Pablo Picasso
 1954
 Spanish

- Display Field and Field Group Names – Displays the name of the field group and its order position, followed by a field display name (text) in Field Standards and in the data.

Example: Artist Info:

Artist:	Pablo Picasso
Artist Date:	1954
Artist Nationality:	Spanish

3. *Display Order* – Type in the numeric reference or order number that the field displays in Insight.
4. *Available Fields* – List of defined (source) fields for a fields group.
5. *Member Fields* – Displays selected fields belonging to this group.

Note: A Field Name is a database column name from a table that you wish to bring into Insight.

ADDING A NEW FIELD GROUP

Field Groups enable you to associate multiple fields to display together in Insight. The display name for each field name is set in Field Groups. When defining the Field Groups, you must use it in conjunction with Fields and Field Standards to correctly display the information in Insight.

To add a new Field group:

1. Right click → New in the navigation tree on the **Field Groups** folder. The following window appears:

Figure 39 - Add a New Field Group

2. Display Name – Provide a name that you want to display for a field group.
3. Select a field group type in the list box by clicking the down arrow key:
 - *Single (Use Delimiter Type)* - Set this group as a single field where there is no grouping involved and will use the delimiter specified in the fields table of multi-value.
 - *Display Field Name* - All data fields that belong to this group are displayed in a group but the *define display text* in the Field will be displayed.
 - *Display Field Group Names* - Displays group names with all data fields that belong in this group.
 - *Display Field and Field Group Names* - Displays group name followed by display text in the field as a group.
4. Enter a preferred Display Order. (* By default a display order is incremented by one every time we create a new group.)
5. Select all the fields that you wish to bring into this group in the Available Fields panel and Click >> to add the selected fields in the Member Fields Panel. (*If a field is not listed in the selection panel, you have to add a *new field*.)
6. Click Save to update the Field Group setting.

EDITING AN EXISTING FIELD GROUP

1. Right click→Edit on any existing field group in the main control panel. The main control panel is visible after you have selected **Field Groups** in the navigation tree.

Size	1	5
Master Batch Number	1	6
Master Seq Number	1	7
Production Comments	1	8
SC Number		9
View		10
Dated		11
Object Name		12
Credit Line	1	13

New
Edit
Delete

Figure 40 - Edit Existing Field Group

2. Make your changes on the selected Field Group and click Save to update the settings.

DELETING AN EXISTING FIELD GROUP

1. Right click→Delete on any existing field group in the main control panel. The main control panel is visible after you have selected *Field Groups* on the navigation tree.
2. You will be presented with a Delete confirmation dialog asking if you are sure you want to delete the selected field groups. Click Yes in the Delete confirmation window to confirm deletion and update field groups.

Set Up Fields and Identify Sort Order

The Field Display name can derive from many areas in the Insight database. Three places that affect the field display are Print, Display Data and Field Groups.

Print – When you are in Print mode and you select *Print image data*, all fields that are enabled as *displayed in data* are used, as well as the order of the display.

Display Data – All fields that are displayed and the order of the displayed data is determined in Field Standards.

ADDING A NEW FIELD

In order to add a field in Insight and to have it display correctly, you must add a field to Fields, add a Field Group (see *Section 2, Adding a New Field Group* in this chapter), and add a field to Field Standards (see *Section 2, Adding a New Field to an Existing Field Standard* in this chapter).

Follow the steps below to add a new field:

Field Name:	Title
Field Display Name:	Title
Field Group Name:	Title
Table Name:	ObjectRecord
Joined Tables:	Resides in Primary Objects Table
Delimiter Type:	Multi-field Name
String Type:	Expandable Short String
Field Type:	String
Hierarchy Mode:	None
Hierarchy:	None
Grouping Table	None
Grouping Field Name	
Preferred Field (Optional)	
Display Order	5
<input checked="" type="checkbox"/> Keyword Searchable	<input type="checkbox"/> Search Pick Field (browser)
<input checked="" type="checkbox"/> Displayed in Data	<input checked="" type="checkbox"/> Data Field Searchable (browser)
<input type="checkbox"/> Fuzzy Date Field	

Figure 41 - Add a New Field

1. *Field Name*- Provide the name of the field in the source table.
2. *Field Display Name*- Provide the display name for Browser Insight, Printing, and the v2 Data Editor.
3. *Field Group Name*- Choose the appropriate field grouping. If a field group is not listed in the list box, you need to add a field group (refer to *Section 2, Adding a New Field Group* in this chapter).

4. **Table Name-** Choose the table where the source field is stored. If a table name does not exist in the list box, you need to add a table to the Insight database (refer to *Chapter 4, Section 2, Create a Table*).
5. **Joined Tables-** Select the appropriate join path.
6. **Delimiter Type-** Select a delimiter type. The pull-down lists various types of delimiters to separate different data fields when they are grouped. By default, "Semicolon" should be used. The delimiter types are as follows:
 - *Multi-field Name* - Display multiple fields in a line without any delimiter.
 - *Single-Field Name* - Display a field name and its data.
 - *Comma* - Display data together in a line separated by a "," delimiter.
 - *Semicolon* - Display data together in a line separated by a ";" delimiter.
7. **String Type-** Select a string type. The pull-down lists different ways that data strings can be displayed. The string types are:
 - *Expandable Short String* - Gives the ability for Insight to display long text data in an expandable text field in the Insight client. The string is initially displayed as a one-line field and truncated. To expand this data field, click the small right arrow key next to the data display in the Insight client.

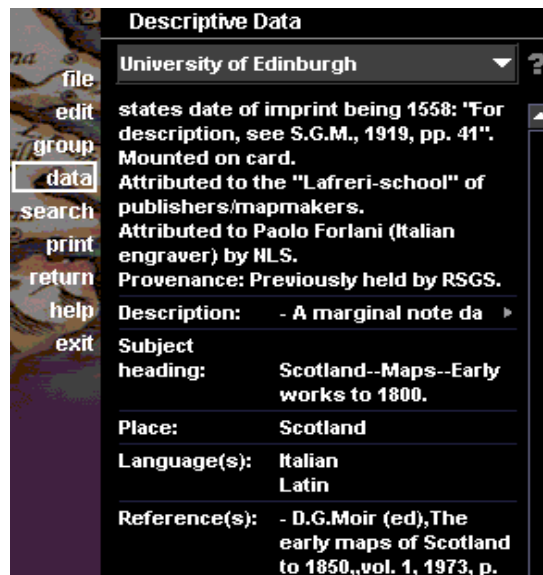


Figure 42 - Before Expansion

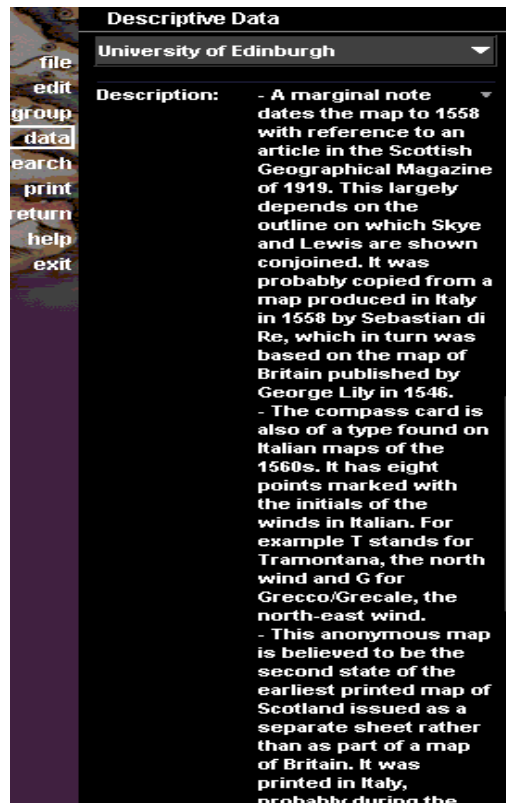


Figure 43 - After Expansion (Arrows Point Down)

- *Long String* - Displays data as a whole length without expanding the selection. All data displayed for Field Image is displayed in full long text format.

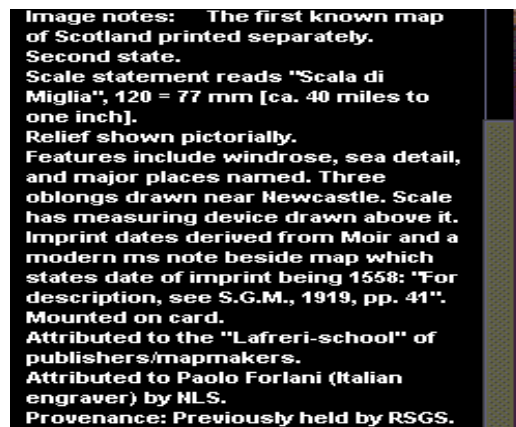



Figure 44 - Example of Long String

- *Non-expandable short string* - Displays only a short version of the data.

8. *Field Type* - Defines a type of field that is brought into the Insight collection. Click to expand the list of defined field types. The default field type, *Long* should be used. The defined field types are:
 - *Unsearchable* – Define the property of the selected field as a non-searchable field in an Insight database.
 - *String* – Define the property of the selected field as a text value field. Example: “Henry”)
 - *Integer* – Define the property of the selected field as a numeric field. (Example: 123456 - whole number only)
 - *Date* – Define the property of the selected field as a Date field. (Example: 12/01/02)
9. *Hierarchy Mode*- This is the default behavior of the hierarchy tree which includes the options of None, Current Node Only, Include Children of Current Node, and InScribe Access Only.
10. *Hierarchy*- Choose the Hierarchy for this field.
11. *Grouping Table*- Select a Grouping Table name in the selection list.

Note: *Grouping Table and Grouping Field Name maintain the row position of grouped values. For example: If we consider a table defining people we may have a Name, Date and nationality. The Table that contains this information also has a numeric row identifier. This Row identifier is what we are referring to. This way Insight knows to display the values together.*
12. *Grouping Field Name*- Defines the grouping of the current Field. (**Note:** Must have an entry in this field. This field is usually the primary unique field of a table). Example: ObjectID
13. *Preferred Field (Optional)* – This is the preferred value in the thumbnail labels where multiple values exist. Enter the column name of the field in the database that indicates the preferred value. The value in the column must be a **1 to indicate preferred**. All other values will indicate not preferred. The column must be within the join path for the field.
14. *Display Order* - The field is displayed in Insight in the order that they are assigned here.
15. *Select List* - Select a data list by clicking the down arrow . The data lists that you see in InSight depend on how you set your *Select List* here in the Admin Tools. The data list settings are:
 - 0. None - This setting does not invoke a data list. You must enter the search data yourself in InSight.
 - 1. Available - InSight automatically fills in “lists all” in the data field and you have the option to either select this option and have InSight display all the lists of data or you can enter the data to be searched yourself.
 - 2. Automatic - A setting of “automatic” enables InSight to automatically fill in “lists all” in its data field and to display all the available lists of data for the searched fields. You can then select the data that you need.
16. *Keyword Searchable*- Check this option if this field is Keyword Searchable.

17. *Displayed in Data* - Check this option if this field is displayed in Data.
18. *Data Field Searchable (browser)*- Check this option if the data field is searchable in Insight browser.
19. *Search Pick Field (browser)*- Check this option if this field is a Search Pick for browser Insight.
20. *Fuzzy Date Field*- Check this option if this field is a fuzzy date.

DEFINE PROPERTIES AND SETTINGS OF FIELDS

Navigate and highlight **Fields** in the navigation tree and right click *Edit* in any of the fields in the main control panel. If a field is marked *Enable as Displayed* then that data field will be in use when a user clicks print.

Follow the steps below to determine the properties and settings in the fields:

1. Expand the Field Standards by clicking on the “+” sign next to Field Standards in the navigation tree and select an Institution name.
2. Click on the field name that you would like to edit in the information window. Right click your mouse and select *Edit Field*.

Name	Display Name	Order	Type	S
Genre-Form	Genre-Form	1	String	Lon
Physical_Des...	Physical Descri...	2	String	Lon
Title_and_Titl	Title and Title-	3	String	Lon
Physical_Med		4	String	Lon
Physical_Des		5	String	Lon
Physical_Med		6	String	Lon
Physical_Med		7	String	Lon
Conv and Ma	Conv and Merc	8	String	Lon

Figure 45 - Edit Field

These are the settings for the selected field in the Edit window.

The screenshot shows a dialog box titled "Edit - Title". It contains the following fields and options:

- Field:** A dropdown menu showing "5 - Title".
- Display name:** A text input field containing "Title".
- Display order:** A text input field containing "5".
- Description URL:** An empty text input field.
- Field type:** A dropdown menu showing "String".
- String type:** A dropdown menu showing "Expandable Short String".
- Select List:** A dropdown menu showing "1 - Available".
- Is selectable as thumbnail caption?
- Is selectable as sort field?
- Is data field searchable?
- Search Pick Field
- Fuzzy Date Field

At the bottom of the dialog are two buttons: "Save" and "Cancel".

Figure 46 - Edit Field Properties and Settings

- *Field* - Select the field that you want to edit.
- *Display order* - A number that determines the order in which the data is displayed in Insight, the order in which the data field is searched and sorted.
- *Description URL* - Enter the internet URL link page that describes the field in the Description URL. Example of VRA Core Categories, Version 3.1:

<http://www.gsd.harvard.edu/~staffaw3/vra/vracore3.htm>
- *Field type* - Select a field type and string type.
- *String type* - Select a string type.
- If the checkbox is enabled (checked) or states: "Selectable as thumbnail caption?" then this field will be used as a display thumbnail data in Insight.
- If the check box is enabled or states: "Is selectable as sort field?" then Insight will list this field among the fields that are sortable.
- If the checkbox is enabled or states: "Is data field searchable?" then Insight will provide this field as a searchable data field.
- *Search Pick Field* - If enabled, this field will be available for search by Insight when Search is clicked from Insight.
- *Fuzzy Date Field* - * If enabled, this field contains fuzzy date content.

Note: The order position will affect the display order in Search by Data Field, Sort By, and Data Display.

Defining Field Standards

Field Standards list all available fields (published and private) that are available in an Insight collection. Insight uses field standards to relate disparate data sources and present the data in relation to these standards.

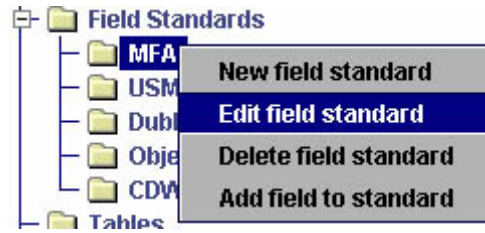


Figure 47 - Edit Field Standard

ADDING A NEW FIELD STANDARD

Follow the steps below to add a new field standard to a table:

1. Right click **New Field Standard** on the Field Standards folder in the navigation tree. You can also add a new Field Standard by right clicking on any existing table and select New, Edit, or Delete a Field Standard. The Edit Field Standard dialog appears.

Edit Field Standard - Smith College

Standard Name:

Type:

Version:

Version Info:

Description URL:

Order Position:

Enabled:

Create Thumb Cache:

Sort Fields:

Thumbnail Fields:

Figure 48 - Add a New Field Standard

2. *Standard Name* - Enter the Standard Name.
3. *Type* - Select a standard type, *Collection*, *Local* or *Publish* from the drop down list.

Standard Types are:

Collection – All fields in this standard are available within the collection only. Example: David Rumsey Collection

Institution (Local) – All fields in this standard are available as an institution standard. Example: Yale Core

Published – All fields in this standard are available as a publishing standard; Example: CDWA

4. *Version number* and *Version info.* - Enter the required data or leave empty.

Note: Only enter information here if you have two different standard versions and would like to describe a brief description of the standard.
This entry can be left empty!

5. *Description URL* - Enter the Internet URL link page that describes the standard collection in the Description URL. Example of VRA Core Categories, Version 3.0:

<http://www.gsd.harvard.edu/~staffaw3/vra/vracore3.htm>

6. *Order Position* - Enter the Standard order position when starting the Insight collection.
7. *Enable* - Enable or disable the standard name. When disabled, Insight will not use this standard name in Insight to view data.
8. *Create Thumbnail Cache* - To cache all references in the memory for faster retrieval of images, data, and standard relations in a collection.

Note: For better and faster retrieval of images and data this option should be enabled.
9. *Sort Fields* - Lists of fields that you would like to sort. Select a field from the available list from the drop down list box.
10. *Thumbnail Fields* - Lists of fields that you would like to display as thumbnails when Insight first starts-up. Click and choose the available list of fields in the drop down selection list box.
11. Click Save to save the field standard.

EDITING A FIELD STANDARD

1. To edit an existing Field Standard, right click on the field that you need to edit and select **Edit field standard**.

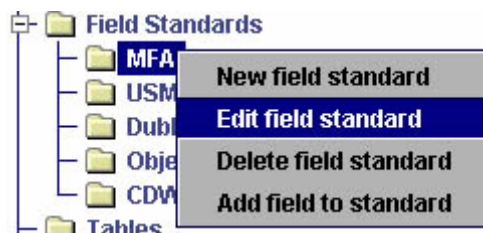


Figure 49 – Select Field from Field Standards

2. The Edit Field Standard dialog will open.

The screenshot shows a dialog box titled "Edit Field Standard - DublinCore". It contains the following fields and controls:

- Standard Name:** Text box containing "DublinCore".
- Type:** Dropdown menu showing "3 - Published".
- Version:** Text box containing "1.0".
- Version Info:** Empty text box.
- Description URL:** Empty text box.
- Order Position:** Text box containing "3".
- Enabled:** Unchecked checkbox.
- Create Thumb Cache:** Checked checkbox.
- Sort Fields:** Four dropdown menus, each showing "Resource Identifier".
- Thumbnail Fields:** Four dropdown menus showing "Title", "Creator", "Resource Type", and "Date".
- Buttons:** "Save" and "Cancel" buttons at the bottom.

Figure 50 - Edit Field Standard

3. In the Edit Field Standard dialog, make necessary changes for the fields and click Save to accept the new settings. For additional information, refer to *Adding a New Field Standard* in this section.
4. Click Save to save the changes.

DELETING A FIELD STANDARD

1. Select **Field Standard** in the navigation tree. A list of field standards appear. Right click on a name of a field standard you wish to delete.
2. Select Delete Field Standard on the selected standard that you would like to delete. You will be prompted with a delete confirmation.

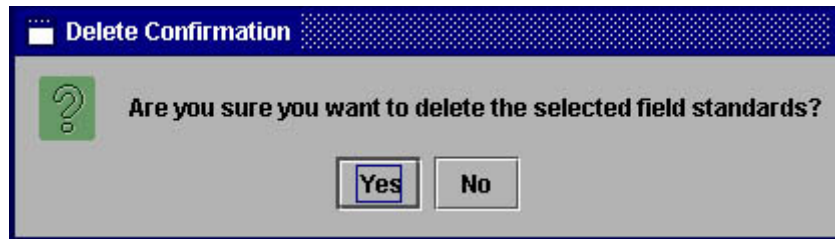


Figure 51 - Deleting a Field Standard

3. Click Yes to confirm your deletion and update the field standards table.

Working with Existing Field Standards

ADDING NEW FIELD TO EXISTING FIELD STANDARD

Field Standard determines the data that is displayed in the data display window and the behavior of each field in the Insight Client.

To add a new field into an existing field standard:

1. Double click the folder **Field Standards**. Any already created standards will be available. Click on one of these standards. Then, right click→*Add field to standard* on any existing field standard in the dialog panel.

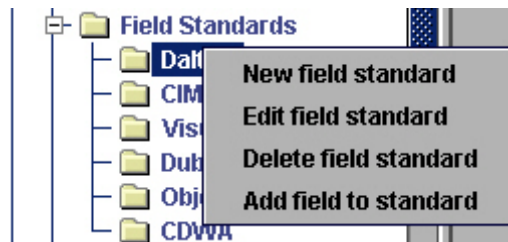


Figure 52 – Adding Field Standard to an Existing Field Standard

2. *Field name.* - The drop-down list is only available if the field standard is a type of collection. The drop-down list selections are pulled from the Fields table. If the field standard is *local* or *published* and not a *collection*, then instead of a drop-down list (there is no selection since there are no resources available), you will see a text field that requires manual entry for the field name. Open the Field Standards folder to see the Field Standard Types (Collection, Local, or Published). **Do not edit published standards.**


Figure 53 - Add New Field to Existing Field Standard


Enter a *Display name*, the text displayed will be available in the following features of Insight:


- a. Search by (if enabled)
- b. Sort by (if enabled)
- c. Display data windows (if there is no field group)
- d. Search by data field (if enabled)
- e. Change thumbnail label (if enabled)

Note: You will see a *Field Name* in the dialog panel if you modified a Field Name in Institutional standard or published standard (outside of the Insight collection), otherwise you will not see this field (unless it is from a *collection*). The reason is the Institutional and published standards are in the database but there are no external references from Insight pointing to them so you have to manually enter a Field Name.

3. *Display order* - Enter a number for this field. Zero (0) is designated as a starting number.
4. *Description URL* - The URL address or path where it links to a web page describing information on a particular field.

5. *Field type* - Select a field type in the list by clicking . The field types are:
 - *Date* - Field is a date field (ddmmyy)
 - *Integer* - Field is a numeric field
 - *String* - Field is a text field
 - *Unsearchable* - Field is not a searchable field

6. *String type* - Select a string type by clicking the down arrow . The string types are:
 - *Expandable Short String* - Gives the ability for Insight to display long text data in an expandable text field in the Insight client. To expand this data field, click on the small right arrow key next to the data displayed in the Insight client
 - *Long String* - Displays data as a whole length without expanding a selection.
 - *Non-expandable short string* - Displays only a short version of the data.

7. *Select List* – Currently, you only see this field in the Edit mode since the default setting for *adding a new field* is set to zero. Select a data list by clicking the down arrow . The data lists that you see in InSight depend on how you set your *Select List* here in the Admin Tools. The data list settings are:
 - 0. None - This setting does not invoke a data list. You must enter the search data yourself in InSight.
 - 1. Available - InSight automatically fills in “lists all” in the data field and you have the option to either select this option and have InSight display all the lists of data or you can enter the data to be searched yourself.
 - 2. Automatic - A setting of “automatic” enables InSight to automatically fill in “lists all” in its data field and to display all the available lists of data for the searched fields. You can then select the data that you need.

8. Other settings:
 - *Is selectable as thumbnail caption?* * If enabled, this field is available in Insight as a selectable field under the change thumbnail labels feature.
 - *Is selectable as sort field?* * If enabled, this field is available in Insight as a selectable field under the Sort by feature.
 - *Data Field Searchable (browser)* - If enabled, this field is available in Insight as a searchable field.
 - *Search Pick Field (browser)* * If enabled, this field will be available for search by Insight when clicked on search.
 - *Fuzzy Date Field* - * If enabled, this field contains fuzzy date content.

9. Click **Save** to update the setting.

DELETING AN EXISTING FIELD FROM FIELD STANDARD

1. Right click→*Delete field* on the field that you want to delete.
2. Click Yes to confirm the deletion.

EDITING EXISTING FIELD FROM FIELD STANDARD

1. Right click→*Edit field* on the field that you would like to edit.
2. Click Save to update your new settings once the editing is completed.

Migrating Flat File to a Relationship Structure

In a flat (single-table) database, each single record is the whole and complete representation of a given item in that database. In a relational database, information about an item is broken up into multiple, related records, which in turn are distributed into multiple tables. For example:

Flat File: * notice there is only one table for the whole database

ObjectID	Accession	Artist	Title	Date
1	0172	Bonnard, Pierre	The Open Window	1921
2	0174	Bonnard, Pierre	The Palm	1926
3	0217	Braque, Georges	The Round Table	1929
4	0284	Cezanne, Paul	Ginger Pot with Pomegranate and Pears	1893

Figure 54 - Flat File

Relational Structure: Notice a relational structure composes more than 1 table and its link to one another through a unique key.

OBJECT-ID	DaltonID	RIP	RIP-SORT	RID	RIR	RIL
1	DAL_.1013	Y	A	Full View	HasFormat	AGO_.1013.TIF
2	DAL_.1016.25	Y	A	Full view	HasFormat	AGO_.1016.25.tif
3	DAL_.1016.32	Y	A	Full view	HasFormat	AGO_.1016.32.tif

Figure 55 - Relational Structure (Table Image)

ROWID	DaltonID	MCM	MED	MDV	MDU	MEQ
1	DAL_.1013		Height	43.2	cm	
2	DAL_.1686		Height	58.4	cm	
3	DAL_.2403	Sheet	Height	23.4	cm	

Figure 56 - Relational Structure (Table Measurement)

These two tables relates to each other through a unique DaltonID (* For more information on data structure, refer to your database server references. This manual is not designed to explain the details between the two structures.)

To Implement a relational database in Insight, follow the steps below:

1. Add all the tables you need Insight to use (refer to *Section 2, Chapter 4, Create a Table*).
2. Add all joins that link between tables (* refer to *Section 2, Chapter 4, Create a Join*).
3. Add a field in a relational structure database with special attention to Joined Tables, Grouping Table, and Grouping Field Name (refer to *Section 2, Chapter 4, Adding a New Field*).

The following is a graphical explanation that show several differences when moving data from a flat structure to a relational structure in the Insight Admin Tools.

Flat Structure defined in Field:

Field Name:	Medium
Field Display Name:	Medium
Field Group Name:	Medium
Table Name:	Medium
Joined Tables:	Medium -> MediumToObjectMap
Delimiter Type:	Multi-field Name
String Type:	Expandable Short String
Field Type:	String
Hierarchy Mode:	Current Node Only
Hierarchy:	AAT
Grouping Table:	None
Grouping Field Name:	
Preferred Field (Optional):	
Display Order:	7
<input checked="" type="checkbox"/> Keyword Searchable	<input type="checkbox"/> Search Pick Field (browser)
<input checked="" type="checkbox"/> Displayed in Data	<input type="checkbox"/> Data Field Searchable (browser)
<input type="checkbox"/> Fuzzy Date Field	

Figure 57 - Moving Data from Flat Structure to Relational Structure

Notice the following:

- A flat file only has one table in the *Table Name* selection list.
- There are no joins in the *Joined Tables* list. It resides in the Primary Objects Table, which is set as the default.
- There is only one group table in the *Grouping Table* selection.
- *Grouping Field Name* -ObjectID is a primary key of this group table.

In a relational database structure, pay special attention to the following section in *Fields*:

1. *Table name*: you will see a list of table names as a selection.

Figure 58 shows a list of the available table names and the selected table name (refer to *Section 2, Chapter 4, Create a Table*).

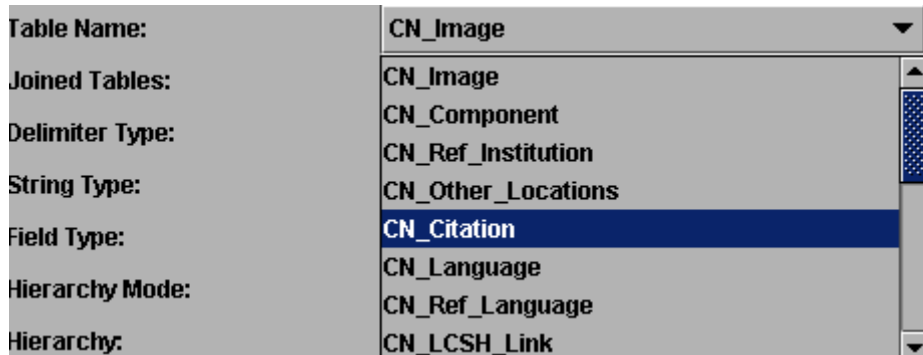


Figure 58 - Selected Table Name

2. *Join Tables*: Shows a list of defined joins in the Edit joins dialog. This dialog establishes a relationship between the dependent table and the main primary object table.

Figure 59 shows a list of all available selections for joins. (refer to *Section 2, Chapter 4, Create a Join*).

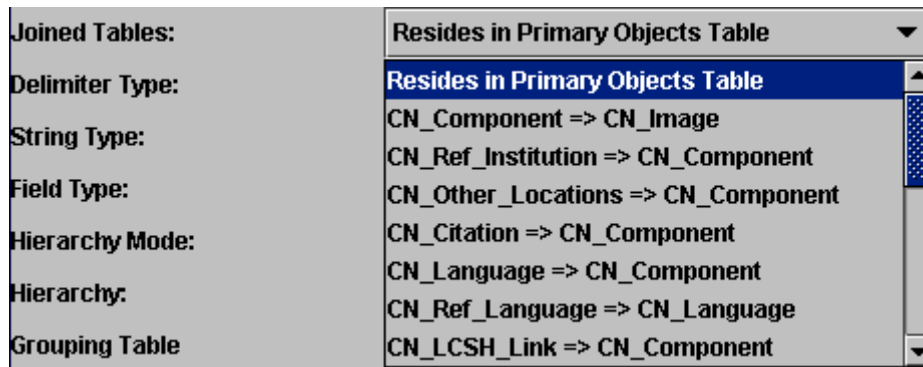


Figure 59 - Available Selections for Joins

Notice the following:

- CN_Component is a main primary object table defined in Grouping Table. Every dependent table should be linked back to a primary table.
 - CN_LCSH_Link is a dependent table defined in Grouping Table that must be linked to a main primary object table.
3. *Grouping Table*: Lists the names of tables in which a data field can be located. Example: CreatorName Field belongs to a group table called Creator because you can find this data field in the Creator table.

Figure 83 shows a list from the Grouping Table in a relational structure.

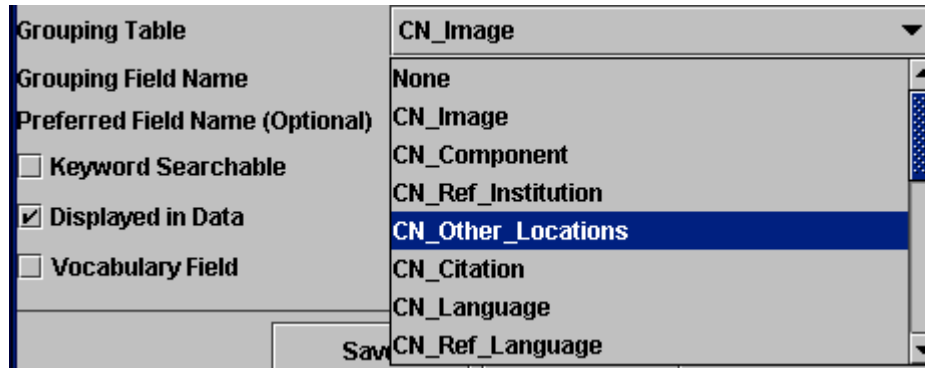


Figure 60 - List from Grouping Table from Relational Structure

4. Grouping Field Name: Provides the main primary object link that relates back to the main table.

Figure 84 shows the defined Object link data field which relates back to the main primary object table.

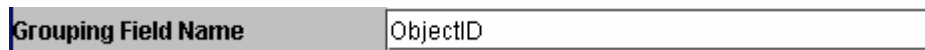


Figure 61 - Defined Object Link Data Field

Managing Field Standard Relations

The Manage Field Standard Relations selection allows you to define institutional standard fields within public standard fields such as CDWA.

To invoke Manage Field Standards Relations, do the following:

1. Open the Fields Standards folder by double clicking it. You will see all the available Field Standard names in the Field Standards folder.
2. Select the Field Standards folder on the navigation tree and right click the Field Standards folder. Select *Manage field standard relations*.

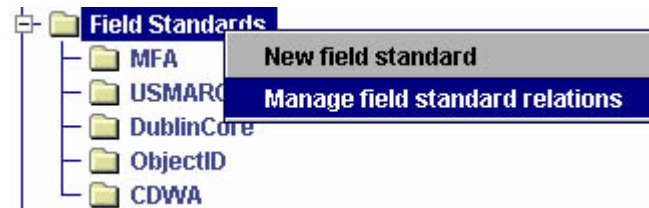


Figure 62 - Manage Field Standard Relations

3. The Manage Field Standard Relations window will open.

This window contains all the available field names for a particular field standard. The field names are all alphabetized. The institution fields should be on your left side of the window and the public standard fields are on the right side. When mapping your standard fields, make sure your institution name and the public standards are selected.

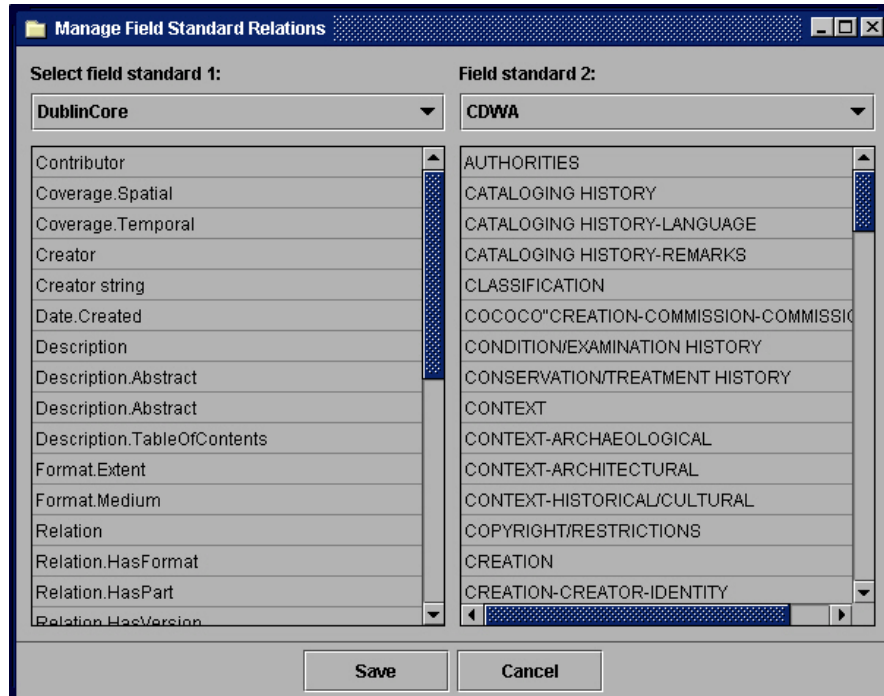


Figure 63 - Institution and Public Standard Fields

Selecting Your Institution Standard and Public Standard:

- Under *Select field standard 1* and *Select field standard 2*, click on the current standard field to expand a list of available selections. Locate and select the institution name that you want to map. For example, DublinCore was selected as the institution in *Select field standard 1* in the figure above. A list of available fields for mapping will present itself in the selection windows below the institution name.

Mapping Institution Field Standards to Public Field Standards:

- Click and highlight the list of available institution standard fields. Once selected, scroll and select a public standard field that you wish to map. Not all standards will have the same field names and in most cases one standard field name may be associated with two or more field names in a different standard. In the example to follow, the field Medium is associated with a variety of other fields such as Materials and Techniques Description, Materials and Techniques Materials and other such fields that would all relate to what is called Medium in the field standard 1.

The field name(s) highlighted in red are active. To link and unlink fields to this active field, click on them and a linked field will turn blue.

6. Once you have completed your links, click Save to save them. To cancel any already created links, just click Cancel. Any links made will not be saved until you press the Save button. Once the Save button is pressed, all the mapped links on the dialog panel are permanently saved to the database. However, you need to restart your Collection Manager to make these changes active.

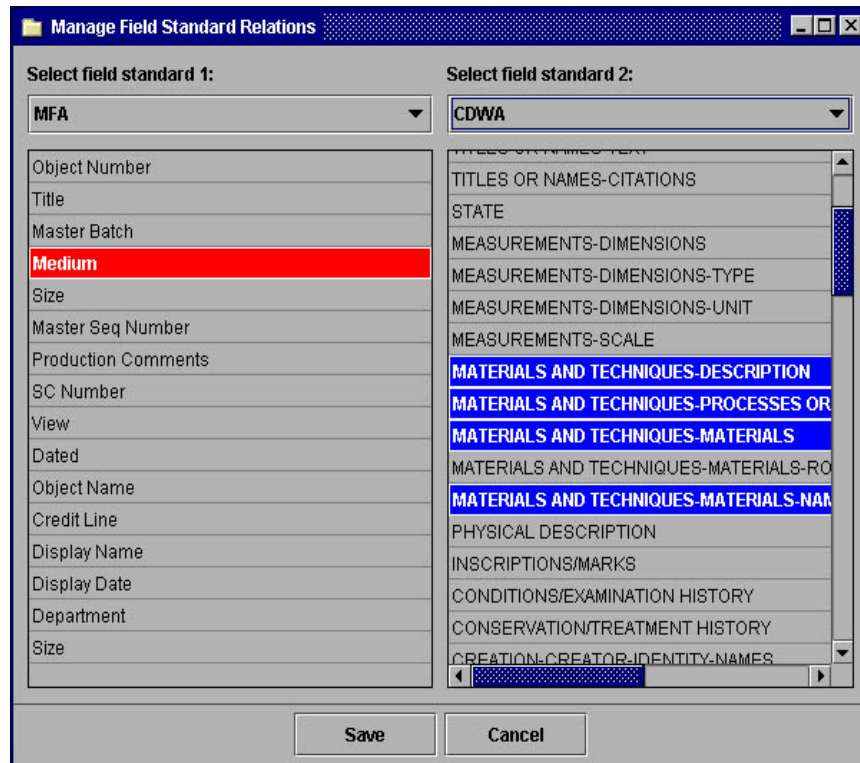


Figure 64 - Mapping Field Standards

Unmapping Your Institution Field Standard to a Public Standard:

7. If you would like to un-map or un-link an already linked mapped institution standard field, click on the mapped institution standard field that you would like to un-map. A list of mapped public standard fields is highlighted in the selection box in blue. To un-map, simply click on the blue mapped fields in the selection box under the public standard fields. They will lose the blue highlight and are no longer mapped.
8. Click Save when done. The changes will be recorded. However, you need to restart your Collection Manager to make these changes active.

Mapping Metadata Standards

Insight Metadata Standards Mapping

Effectiveness of searching can be significantly enhanced through the existence of rich, consistent metadata. Metadata standards make it possible to search across multiple collections or to create virtual collections from materials that are distributed across several repositories. However, this is only possible if the descriptive metadata are the same or can be mapped from one schema to another schema.

Insight provides the ability to search across collections that have different field sets by using an intermediary metadata standard. This is achieved by breaking the metadata crosswalk into two parts; 1) the standards fields and 2) the relations they have to each other.

The Field Standard table contains the properties for each collection and standard field. The Standard Field Mapping table then defines the relation between each field and a mapping standard field, such as CDWA.

When collection fields are mapped to CDWA, Insight is then able to know its equivalent field in another standard, such as VRA, CIMI, Dublin Core, USMARC; using the mapping standard as a bridge. Multiple collection fields may be mapped to a single standard field, or visa versa.

Metadata Standards References- This is a list of resources where you can learn more about data standards.

Introduction to Metadata - Metadata Standards Crosswalk

<http://www.getty.edu/research/institute/standards/intrometadata/>

Categories for the Description of Works of Art (CDWA)

<http://www.getty.edu/gri/standard/cdwa/>

The CIMI Profile

<http://lcweb.loc.gov/z3950/agency/profiles/cimi2.html>

<http://www.unt.edu/wmoen/projects/Z39.50/cimi/Profile/appendixc.htm>

Dublin Core Metadata Element Set Version 1.1

<http://purl.org/DC/documents/rec-dces-19990702.htm>

CIMI Guide to Best Practice: Dublin Core, Version 1.1

http://www.cimi.org/public_docs/meta_bestprac_v1_1_210400.pdf

MARC 21

<http://lcweb.loc.gov/marc/>

Object ID Project

<http://www.object-id.com/>

VRA Core Categories, Version 2.0

<http://www.oberlin.edu/~art/vra/guide.html>

VRA Core Categories, Version 3.0

<http://www.gsd.harvard.edu/~staffaw3/vra/vracore3.htm>

Using the Measurement Tool

The Measurement Tool is used to specify the actual dimensions or numeric fields (height and width values) of an object (actual image or contents within an image). It is a tool used to configure settings for images in Insight Workspace as well as a tool to view default image settings from Insight JVA.

In order to use this tool, default values for the fields must be available. Insight generates default values for fields when creating a new collection and these default values are made accessible to the Measurement Tool.

Note: This tool is release dependent. It will only be available if the IObjectDimension table is present in the database. This tool is available in version 3.0 or higher but not available in version 2.x.

1. To launch this tool, click on Measurement Tool from the navigation tree in Insight Admin Tools.
2. Right-click on a field value and select *Edit*. The Measurement Tool window appears:

The screenshot shows the 'Measurement Tool Settings' dialog box. It contains the following fields and values:

- Width Field:** 20 - Measurement Value
- Width Qualifier Field:** 21 - Measurement Dimension
- Width Qualifier Value:** width,w,wdth
- Width Metric Field:** 22 - Measurement Metric
- Height Field:** 20 - Measurement Value
- Height Qualifier Field:** 21 - Measurement Dimension
- Height Qualifier Value:** height,h,ht
- Height Metric Field:** 22 - Measurement Metric
- Metric:** 2 - Inches
- Metric Name Map:** ,mtr=3;centimeters,cm,c=4

At the bottom of the dialog are two buttons: 'Save' and 'Cancel'.

Figure 65 - Measurement Tool

3. Select a width field, height field, and define a metric from the pull-down list. When selecting the width and height fields, make sure you are only selecting numeric fields and not text fields. The Measurement Tool only works with numeric fields.

Note: The width and height field options will vary according to the fields that are set in the collection. Standard metric options are: none, feet, inches, meters, and centimeters.

4. Select a Width Qualifier from the pull-down menu and specify the width qualifier value (for example, width).
5. Select a Width Metric Field from the pull-down menu.
6. Select a Height Qualifier from the pull-down menu and specify the height qualifier value (for example, ht).
7. Select a Height Metric field from the pull-down menu and specify a metric (for example, centimeters), and provide a metric name map or give the metric dimensions for your object or image.
8. When you have completed your settings, click Save.

To view your default value settings that you set, log on to Insight JVA and select a collection to view.

1. Select an image from the collection. Double-click on the selected image.
2. A palette of tools appear. Select the Measurement and Scaling tool to view your default values for the image that you have selected. You can scale the image within your viewable screen area or adjust the width, height, or metrics of your image.

Sequencing Maximum IDs

The Maximum IDs option is a temporary values table with unique IDs for media groups. The values are system generated and always increment by 1 whenever a new media group is created.

Note: The Maximum IDs option enables Insight Administrators to change the sequence of system generated IDs. Do not attempt this unless you are extremely familiar with the Insight Admin Tools and how insight works.

When a collection is created, it will have a default maximum group ID of 1000. This tool is only available if the IRMaxIDs table is present in the database. Also, a maximum ID cannot be decreased or empty.

1. To invoke the Maximum IDs option, click on Maximum IDs from the navigation tree in Insight Admin Tools.
2. Right-click on an ID value and select *Edit*. The Maximum IDs window appears:

Max Group ID:	2071
Max Batch ID:	10001
Max Media ID:	200000
Max User ID:	29
Max Change ID:	4337
Max Search Query ID:	1054
Max LPS ID:	10000

Buttons: Save, Cancel

Figure 66 - Edit Maximum IDs

- *Max Group ID* – ID is generated from a unique Media Group.
- *Max Batch ID* – ID is generated from Media Batches and set in Admin. Tools
- *Max Media ID* – System generates last image ID (highest number available). This option ensures that there is no duplicate image IDs in media batches. This is set in Admin. Tools.
- *Max User ID* and *Max Change ID* – Neither are supported in version 3.1. Both can be set in the Data Editor in a future release .
- *Max Search Query ID* – Temporary unique ID used for queries performed in version 3.1.
- *Max LPS ID* - Defines the next LPSID to be used when processing media using the Inscribe Media Processing feature. This value only needs to be changed if you have processed media outside of Insight and are manually uploading the data to the IRIImageFiles and IRLPS data tables.

Creating Multi-Page Documents

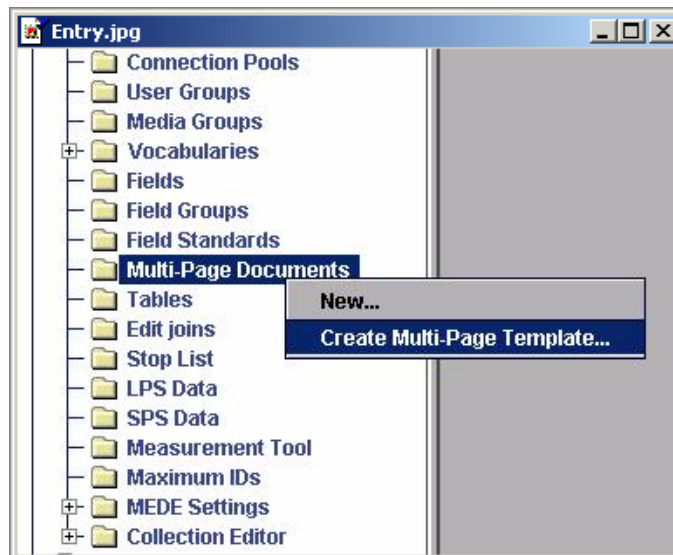
The Multi-Page Document feature enables the structuring of a document into a customized visual series of images based on compiled metadata and provides user navigation tools to access the visual content. This feature allows the Administrator to create multi-page documents and enables the user or cataloger to link the displays of several pages within a document or book for side-by-side viewing in a sequence of their choice. Rich composites of full images, details, and side-by-side comparisons of different images are easily created.

Before a cataloger can view or edit a multi-page document in Insight, these documents must first be created. You can create multi-page documents two ways:

- Use the **Multi-Page Template** (to create multiple multi-page documents at one time)
- Use the **Multi-Page Document Creation** dialog (to create a single multi-page document).

The Multi-Page Template allow users to define a hierarchical structure and to generate multiple entries into the document's database table. Instead of creating multi-page definitions individually for each document, this template enables users to create multiple documents based on user's selected parameters.

The Multi-Page Document Creation dialog enables the Administrator to either create a brand new, single multi-page document or edit an existing single, multi-page document from the Multi-Page Document Template (all the fields will be propagated with existing data from the Multi-Page Template).



CREATION OF MULTIPLE MULTI-PAGE DOCUMENTS

The Administrator will use the Administrator Tools within Insight Collection Manager to create the multi-page documents. Follow the steps below to create multiple multi-page documents.

1. To invoke the multi-page document options, click open *Collection Manager* from the navigation tree in Insight Admin Tools.
2. Right-click on *Multi-Page Document* and select *Create Multi-Page Template*. The Multi-Page Document Template appears.

Level Number	Level Name	Level Field
1	BookName	Title
2	Section	Level
3	Page	PageOrder
4		Book
5		Book
6		Book
7		Book

Multi-Page Documents have a hierarchical structure and each level field, such as Title, Level, or Page Order is unique. There are a maximum of seven levels. At least one level of definition is required in using the Multi-Page document template (definition should start from Level 1, then Level 2, etc.

The highest level, the Document ID Field, is the object itself (book, manuscript, and so forth). The lowest level is a page in a book. The page has to be defined in numeric terms (1, 2, 5, 8) and not in text or roman numerals (one, five, iv, iii) format. You can specify a minimum number of pages to generate a multi-page document from an entire book or manuscript. The default is ten pages.

3. Select a collection from the Collection pull-down list.
4. Select a Document ID Field. The entries in the Document ID Field pull-down list are the values defined in the field table of the collection you have chosen. It is based on the collection that is loaded on your system. Use the highest level for this selection, (for example, Book or Title). This selection should answer the question what is the object that you are creating for multi-page documents.
5. Next to the level number, provide a level name. The level number determines the order of the records that you will provide (number 1 being the highest level). It determines the order of the hierarchy. The level name should be indicative of those areas or various levels that make up

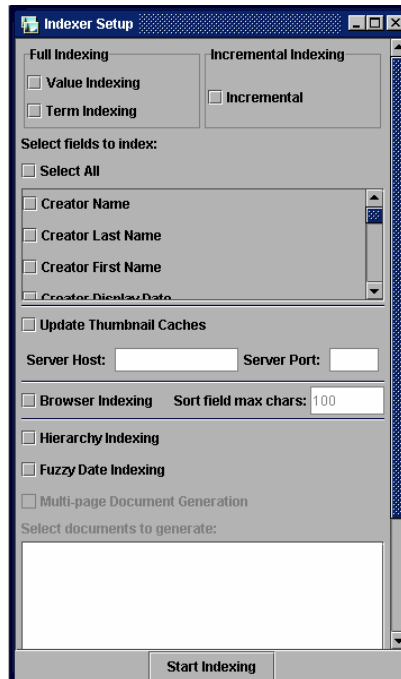
the document. For example, level 1 can be *Plays*, level 2 can be *Acts*, level 3 can be *Scenes*.

6. Select a level field. The level fields should correspond to the level records (names) that you previously gave in step 5. The Level Field selections are determined by the tables (in the Collection) you have pre-loaded or created in your database. The selectable item in the Level Field box (Level 1 through 7) will only contain entries with Value 2 of Field Type from the Field table. The document ID field contains all type values in the Field table.
7. Enter Minimum Page Count. You can specify a minimum number of pages to generate a multi-page document. The default is ten pages. A book cannot be created as a multi-page document that is less than the minimum number of pages specified in the Minimum Page Count field. For example, if the minimum pages you set is 99, then a book with 87 pages will not be created as a multi-page document. Only books with 99 pages or more will be created as multi-page documents.
8. In order to reset the Multi-Page Document Template counter to zero and to create new multi-page documents as specified, check or enable the checkbox that states, "*Remove all existing entries and create new documents.*"
9. Press *Create Documents* to generate document entries into the collection's document database.
10. If you need to redo your template, select *Cancel*.

While the Multi-Page Template creates multiple document definitions, in order to actually generate referenced pages that are seen within Insight, you must run the Indexer in Admin Tools and check or enable "*Multi-Page Document Generation.*" Refer to *Chapter 4, Section 2, Invoking Indexer* in this manual and follow these last few steps below.

11. Click on *Invoke Indexer* from the *Collection Editor* in Insight Admin Tools navigation tree. You must run the Indexer before the multi-page documents can be displayed and viewed in Insight.

In the Indexer, you need to deselect everything and select *Multi-Page Document Generation*. Then, select all the multi-page documents that you created (a list will be displayed) that you want to generate, and run the Indexer by clicking the *Start Indexing* button.



12. Log on to Insight to view, edit, and link your document images. To use Multi-Page Documents in Insight, after you log on, refer to Insight online Help:
- Click on *Help* from the main menu and select *Multi-Page Documents*, or
 - Access the question mark (?) Help from the *Image Workspace tools* palette and select *Multi-Page Documents*.

SAMPLE CREATION OF MULTIPLE MULTI-PAGE DOCUMENTS

The example below shows the logic of how the following documents are to be compiled to create multiple multi-page documents in Insight.

Object ID	Title	Level	PageOrder
0001	Book A	Chapter 1	1
0002	Book B	Chapter 1	3
0003	Book A	Chapter 1	2
0004	Book C	Chapter 1	1
0005	Book A	Chapter 2	10
0006	Book B	Chapter 6	25
0007	Book C	Chapter 2	2

From the sample data above, three multi-page documents will be created: Book A, Book B, and Book C. The books will be organized as follows:

- Book A:
 - Chapter 1, PageOrder, 0001 (Object ID), 0003 (Object ID)
 - Chapter 2, PageOrder, 0005 (Object ID)
- Book B:
 - Chapter 1, PageOrder, 0002 (Object ID)
 - Chapter 6, PageOrder, 0006 (Object ID)
- Book C:
 - Chapter 1, PageOrder, 0004 (Object ID)
 - Chapter 2, PageOrder, 0007 (Object ID)

CREATION OF A SINGLE MULTI-PAGE DOCUMENT

The Administrator will use the Administrator Tools within Insight Collection Manager to create the multi-page documents. Follow the steps below to create a single multi-page document.

1. To invoke the multi-page document options, click open *Collection Manager* from the navigation tree in Insight Admin Tools.
2. Right-click on *Multi-Page Document* and select *New*. The Multi-Page Document Creation window appears.

Level Number	Level Name	Level Field
1	Chapter	Level
2	Page	PageOrder
3		Book
4		Book
5		Book
6		Book
7		Book

Collection: MOA2
 Document ID Field: Book
 Document ID Value: The Craft

Save Cancel

3. In the Multi-Page Document Creation panel, create a document name that you want to display in Insight which reflects your record structure, for example, "W. Shakespeare Portfolio of Plays."
4. Next to the level number, provide a level name. The level number determines the order of the records that you will provide (number 1 being the highest level). The level name should be indicative of those areas or various levels that make up the document. For example, level 1 can be *Plays*, level 2 can be *Acts*, level 3 can be *Scenes*.
5. Select a level field. The level fields should correspond to the level records (names) that you previously gave in step 4. The field selections are

determined by the tables (in the Collection) you have pre-loaded or created in your database.

6. Select a *Collection*. This is pre-loaded by you (Administrator).
7. Select a *Document ID Field*. This is based on the collection that is loaded on your system. Use the highest level for this selection.
8. Provide a *Document ID Value*. This is based on the value of your Document ID Field. This can be a title, author for a group of contents, or even an ISBN number. For example, it can be William Shakespeare or it can be ISBN 0-395-74876-3.
9. To save or cancel your multi-page document creation, select the appropriate button.
10. Follow steps 11 and 12 from the previous section, *Creation of Multiple Multi-Page Documents*. These last steps invoke the Indexer so that you can generate and display the multi-page documents that you have just created.

You will use the features described in this section to process and manage media and data being added or updated within a collection.

If you only have **Collection Editor** rights and nothing else, you will only be able to access the items in the Collection Editor folder as displayed in the figure below (Invoke Indexer, Media Batches, Map objects-to-media).

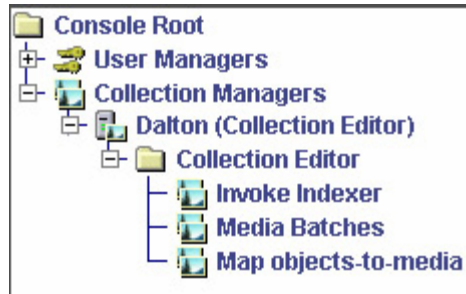


Figure 67 - Collection Editor Components

Invoking Indexer

The purpose of the Insight Indexer is to transform the source information into an inverted index. Insight will use the information stored in these inverted indexes as a resource for searching and displaying data.

Follow the steps below to run the Indexer:

Set Indexer Mode

With the introduction of InScribe Data Editor, there has been an addition to the Indexer menu. If you will be using InScribe, you must set the Indexer mode to the InScribe Indexer mode. If you are using Insight only, confirm that you are set on the Insight Indexer.

To check or change the Indexer mode, go to the *Collection Editor*, right click on *Invoke Indexer* and select *Set Indexer Mode*.

The following instructions are referring to the Insight Indexer. Please refer to the InScribe Configuration Manual for running the InScribe Indexer.

1. Navigate to the Collection Editor folder and either double-click on the folder, or click on the "+" to display the other folders.
2. Right click on **Invoke Indexer** and select Run. This will launch the Indexer Setup window where the indexing options will be presented. The indexing options will vary depending on which stage you are in the collection building process.

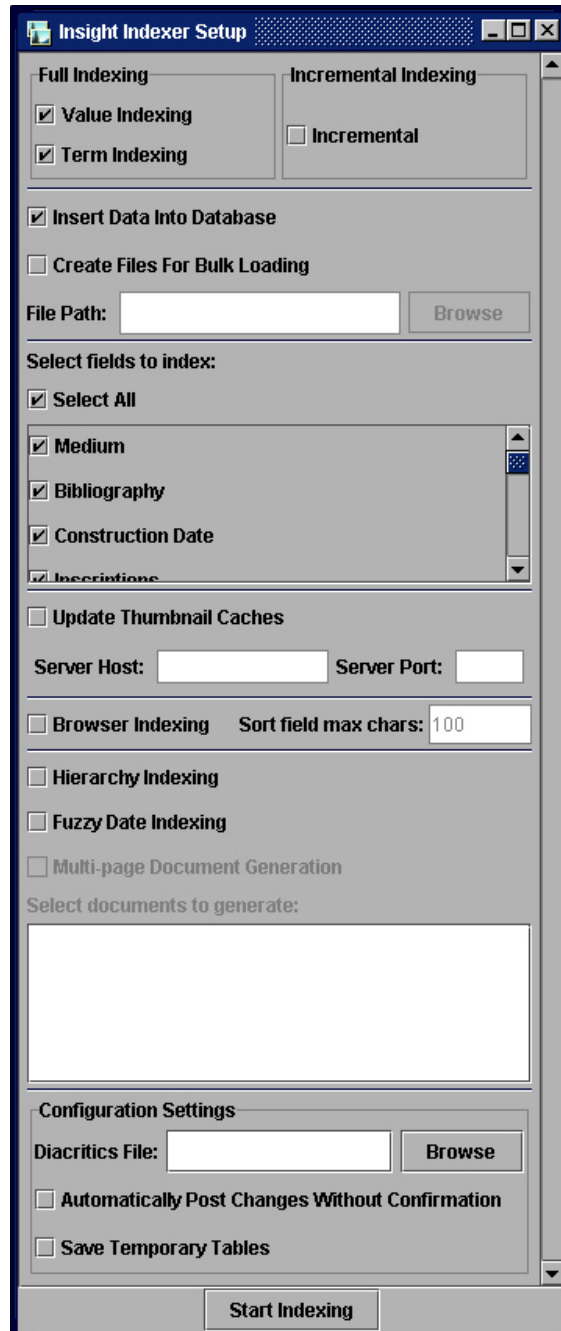


Figure 68 - Indexer Setup

3. *Full Indexing* - Utilizes the Insight mapping tables, such as ISTables, ISJoins, and IRFields to convert the source relational data into a set of inverted tables. The inverted tables store the complete field values and terms in separate tables and use an instance map to define the relationship between descriptive data field, the data value itself, and the object the value describes. Normal

indexing allows you to index values, terms, or both. The terms are gathered from the results of the Value Index.

Value Indexing - Enable this feature if you want all values for every field used in Insight to be processed and inserted into Insight's inverted index table structure.

Term Indexing - Enable this feature if you need all whole words to be processed and placed in Insight inverted index table structure for keyword searching.

4. **Incremental Indexing** - Checks for changes in the data since the last time the indexer was run. If a field value has been modified, deleted, or added, the indexer will recognize the change of state and updates the set of inverted data tables accordingly. The inverted tables are the source of Insight's live data.

Incremental indexing uses an OUTER JOIN query to find the differences between the old data and the new data. For SQL Server and MS Access, the proper OUTER JOIN query can only be generated for the INTERMEDIATE_LEVEL_SQL_92 query mode.

Therefore, before performing incremental indexing, verify the query mode in the *Edit Collection Server* dialog is set to INTERMEDIATE_LEVEL_SQL_92. You can access the *Edit Collection Server* dialog by right-clicking on a registered collection server node and selecting the *Edit* option.

Incremental Indexing uses copies of the original source data to make its comparisons. You will need to create a table for each of the source tables with the prefix IC. For example, you have a table called Artists, there needs to be a table with the same structure called ICArtists. These tables should be identical except for any auto incrementing fields.

Check this option if you need a comparison between the source tables and IC (Insight Copy) tables. The differences will then be processed and placed in the Insight inverted index table structure.

Note: You should have either Full or Incremental indexing checked, not both.

5. With the release of the 4.1 indexer, a new option has been added to the indexer. "Insert Data into database" or "Create files for Bulk loading". Requests have been made by the insight community to Increase the performance of the Insight Indexer. This function is a result of those requests.

The indexer will operate as before if you choose. "Insert Data into database". This is the default. You will however see a ~3x increase in performance.

For large Collection databases you may want to use the bulk load option. This option will require more interaction but will produce a ~14x increase in performance.

Note: The Incremental Indexer has not changed and will still perform as it did prior to the 4.1 release. Improvements for Incremental Indexing are planned for post 4.1

Bulk Load option Instructions:

The bulk load option takes the load off individual database inserts and places the data into text files to make use of bulk load operations.

Select “Create files for Bulk loading” then choose the location to store these files.

Once you start the Indexing process you will be prompted up to two times to load data into the database. Follow the instructions in the following section for your particular db.

Oracle

Once you are prompted, go to the directory that you specified for these files. You will notice some new files followed by .cmd, .ctl, .txt

You will need to make sure that your environment is set up for the load. Ensure you are using the same character set for the load that your database is using i.e. NLS_LANG=American_America.WE8ISO8859P1

The *.cmd file is an executable file that will run the oracle sqlldr utility. You will need to edit this file to enter the correct user and password for your schema.

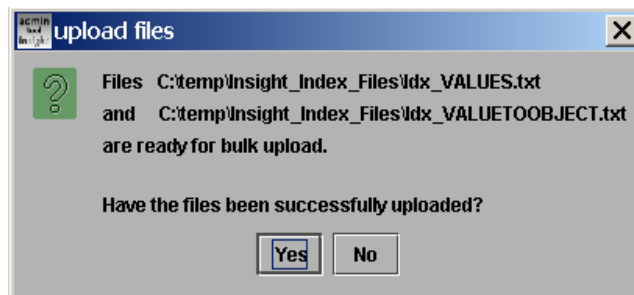
The *.ctl files are the oracle control files used for the bulk load.

The *.txt files contain the data to be loaded.

Execute the appropriate .cmd file. Once the operation completes, return to the Insight Administrator Tools and continue the process. If you are prompted again, repeat this action for the second set of data.

MSSQL

Using SQL Server Enterprise Manager perform the following for each table referenced in the prompt. For instance



In this example the indexer is requesting you to load the Idx_Values.txt file and the idx_ValueToObject.txt file. For this example we will just refer to the idx_Values.txt file. You will need to perform these steps for each file requested.

1. In enterprise manger right click on the “Tables” node for the database you are working on. Go to All Tasks and select Import Data.

2. Follow the wizard through the next steps.
 - a. Click Next past the first screen
 - b. In data source choose text file then browse to the Idx_Values.txt file Click Next
 - c. In the select File format window, change the row delimiter to {LF} and select "Fist row has column names" Click Next
 - d. On Specify Column Delimiter make sure Tab is selected and Click Next
 - e. Choose Destination database and Click Next
 - f. On Select Source Tables and Views Change the destination table to be the ITVlaues Table.Click Next
 - i. Verify this by clicking on the transform button. You should see Append rows to destination table is selected and create destination table is Not selected
 - g. On the next wizard panel you can save this function as a DTS package for future use. Click Next.
 - h. Confirm the process and Press Finish.

Repeat these steps for each requested load. When selecting the destination table replace the "Idx_" with IT. For example: Idx_Values = ITValues

Once you have finished the Bulk Load return to the Indexer and continue the process.

6. *Select fields to Index* - You can choose *Select All* to index all the fields or you may choose to index specific fields.
7. *Update Thumbnail Cache* - Check this option and provide the IP and Port addresses to have the indexer automatically update the thumbnail cache for the Insight collection server. During start-up, the Insight server stores the default thumbnail image and data query results in memory. If this option is selected, the next time an Insight client opens the collection, the newly added images and data will be present. If this option is not selected, the server will need to be restarted in order for the new content to appear in the collection.
8. *Server Host* - Provides the IP or Domain Name of the collection containing the thumbnail cache.
9. *Server Port* - Provides the port number of the collection containing the thumbnail cache.
10. *Browser Indexing* - If this option is checked (enabled), and the collection supports a browser, the browser index can generate an Insight index for up to four sort fields and four thumbnail fields. If the collection does not support a browser, then this option is not available to you.

11. *Hierarchy Indexing* - Generates an Insight hierarchy index for each defined field to contain an associated hierarchy. The results of the hierarchical data are stored in a standardized set of inverted tables common to all Insight implementations. The indexed tables that contain standardized hierarchies are DTHierarchies, DTHierarchyToObject, and DTHierarchyNames.
Check this option if you want your data to be processed into Insight's Hierarchy tables.
12. *Fuzzy Date Indexing* - The indexer generates two Julian dates, a start and an end date for each value in a field defined as a fuzzy date field. In the Edit Fields configuration window, the *Is a Date* option defines a field as a fuzzy date field. The two Julian dates are stored in the DTValues tables alongside the display date in the fields named, Value Date Start and Value Date End.
Check this option if you need the Indexer to convert date strings to Julian calendar dates.
13. *Multi-Page Document Generation* - Check this option if you need automated generation of multi-page documents from pre-defined structures. This feature is only available for Insight server versions 3.5 and higher.
14. *Diacritics File* - Define the location of the diacritics file using the *Browse* function. The diacritics file, typically located in the same directory as your Insight server contains a list of non-standard characters, such as diacritics accompanied by their closest standard equivalent. During the indexing process, the Indexer generates a secondary standardized value reference when a character from the diacritic list is encountered. This second version of the field value is used during searching to ensure that accurate search results are returned even though the diacritic was not used in the search criteria. For instance, if a user was searching for a title containing the word "Françoise," they need only to enter the generalized version of the word, in this case "Françoise" in order to receive an accurate search result.
15. *Automatically Post Changes Without Confirmation* - If this option is not selected, the Indexer will prompt you for a confirmation to update the inverted (live) data tables. However, by selecting this option, the Indexer is being told to update the inverted data table (live data tables) with the newly indexed data without confirmation from the user.
16. *Save Temporary Tables* - If this option is selected, the Indexer will save the data in the ITTables after transferring it to the inverted (live) data tables.

After the options of choice have been selected, click on the *Start Indexing* button to initiate the indexing process. You will see the Indexer Progress dialog box appear when the Indexer is running. This will track the progress of the indexing.

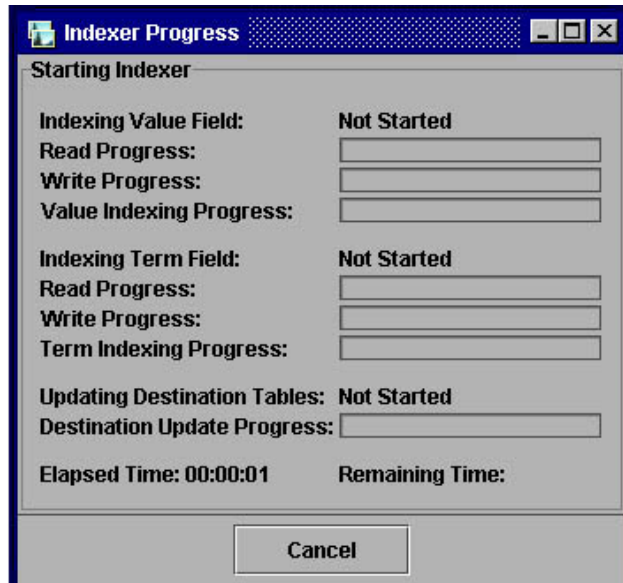


Figure 69 - Monitor Indexer Progress

If errors are encountered during the initialization of the Indexer, refer to the section labeled, *Trouble Shooting the Indexer* below.

RUNNING INDEXER USING THE COMMAND-LINE

NOTE: There are a variety of files referred to in this section of the documentation such as AdminIndexAll.bat, and others, which you may not already have. To receive these files please send an e-mail to support@luna-img.com and ask for the files needed in Running the Indexer Using Command-Line Files as referred to in the documentation. These files are also contained on the Insight Upgrade CD.

1. Edit InsightBackend.dat file and enter the database Login Name and Password and set the correct JDBC driver and prefix (JTurbo or Sprinta for MSSQL or use Oracle for Oracle).

Note: for Sprinta you will need to comment out the user and password login with a #.

Example: DefaultUsername = "Database Login Name"

DefaultPassword = "Database Login Password"

Classname of the JDBC driver to use if the DatabaseConnector is set to
JDBC. If the DatabaseConnector is set to anything else, this will be
ignored.

```
#####Sprinta driver#####
```

```
#JDBCDriverName = com.inet.tds.TdsDriver
```

```
#####JTurbo driver#####
```

```
JDBCDriverName = com.ashna.jturbo.driver.Driver
```

```
#####Oracle driver#####
```

```
#JDBCDriverName = oracle.jdbc.driver.OracleDriver
```

```
# URL prefix for connecting to databases using JDBC. Ignored otherwise.
```

```
####Sprinta Prefix####
```

```
#JDBCUrlPrefix = jdbc:inetdae7:
```

```
####JTurbo Prefix####
```

```
JDBCUrlPrefix = jdbc:JTurbo://
```

```
#### Oracle Prefix ####
```

```
#JDBCUrlPrefix = jdbc:oracle:thin:
```

2. Edit InsightTrinityIndexer.dat file, change the database connections string to point to your database (Two examples are contained in the file remove the # in front of the one you will use)

Example:

```
# MS SQL Example
```

```
#JTurbo
```

```
DatabaseConnect = localhost:1433/insightdb/sql70=true
```

```
#Sprinta2000
```

```
DatabaseConnect =
```

```
localhost:1433?database=Insightdb&sql7=true&user=insight&password=insight
```

```
# Oracle Example
```

```
#DatabaseConnect = @localhost:1521:INSIGHTDB
```

Note: If you are using SQL2000, make sure you specify the database port number at the end of the server name.

Example: DatabaseConnect = Servername:PortNumber/Database
Name/sql70=true

Note for steps 3 and 4: If you have not set a primary objects table and field in the Tables node in the Insight Administrators tools, the indexer will use the following.

3. Define your “primary object table” for your collection (refer to the Admin tool’s tables node to get the proper table and field)

Example: PrimaryObjectTable = TableName (the main object table name)

4. Define your “primary object key” fieldname.

Example: PrimaryObjectKey = KeyID (the main object key in your main object table.)

5. **Preset files:** These files are just starting points. You may want to create others with different options, refer to the index switches in the table below or to the *parameters.txt file*

Note: These presets are using your OS default version of java. If your system is not using 1.3.1+ version of java please update your system or set the full path to a 1.3.1 version of java in these presets. (to see what version of java you are using enter “java -version” at a command prompt.

- “AdminIndexAll.cmd”– Index everything including descriptive data and search data and force update at the end.
- “AdminIndexValue.cmd”– Only index descriptive data and force update at the end (for example, data for display).
- “AdminIndexTerms.cmd”– Only index search data and force update at the end (for example, data for keyword searching).

All command parameters for the Indexer can be found in the *parameters.txt* file. This parameter file lists all the possible options for indexing.

Indexer Switches	Description
-b or -bulk	Create files to bulk load into the database
-i or -incremental	Incrementally index the database
-a or -all	Re-index entire database
-v or -values	Re-index the values
-t or -terms	Re-index the terms
-f or -force	Do not prompt about overwriting old tables.
-stt or -savetemptables	Save (do not clear) the temp tables on exit.
-h or -hierarchy	Index hierarchies
-u or -updatecaches	Update the caches on live collection server
-fd or -fuzzydates	Index fuzzy dates
-fdo or -fuzzydateso	Index fuzzy dates only
-mpd or -mpdgen	Generate multipage documents
-mpdo or -mpdgenonly	Generate multipage documents only
-flatobjbrow (maxchars)	Populate flat object data for browser
-flatobjbrowonly (maxChars)	Populate flat object data for browser only
- ? or /?	Show this help message

INSCRIBE INDEXER

InScribe Indexer Setup

Record Indexing

Value Indexing

Term Indexing

Insert Data Into Database

Create Files For Bulk Loading

File Path:

Update Thumbnail Caches

Server Host: Server Port:

Browser Indexing Sort field max chars:

Hierarchy Indexing

Fuzzy Date Indexing

Multi-page Document Generation

Select documents to generate:

Configuration Settings

Diacritics File:

Automatically Post Changes Without Confirmation

Save Temporary Tables

The Inscribe Indexer resembles the Insight Indexer with a couple of items missing. Notice there is no individual field selection and no Incremental indexer. To setup InScribe please refer to the InScribe configuration manual.

The operation of the InScribe indexer is consistent with the insight indexer. Please follow the instructions stated in the previous section referring to the Insight Indexer.

The Inscribe Indexer has different command line options as well please use the table below for reference.

Indexer Switches	Description
-b or -bulk	Create files to bulk load into the database
-a or -all	Re-index entire database
-v or -values	Re-index the values
-t or -terms	Re-index the terms
-f or -force	Do not prompt about overwriting old tables.
-stt or -savetemptables	Save (do not clear) the temp tables on exit.
-? or /?	Show this help message

TROUBLE SHOOTING THE INDEXER

When attempting to run the Indexer, there may be errors that occur and can cause the Indexer to fail. This section will describe some of the common errors and will also provide solutions to those errors.

An error you may encounter could cause the indexer to stop in the middle of indexing. In this case, you need to go into the *Edit Collection Manager* dialog window and turn on (check) the *Log Batch Commands* check box and then rerun the Indexer.

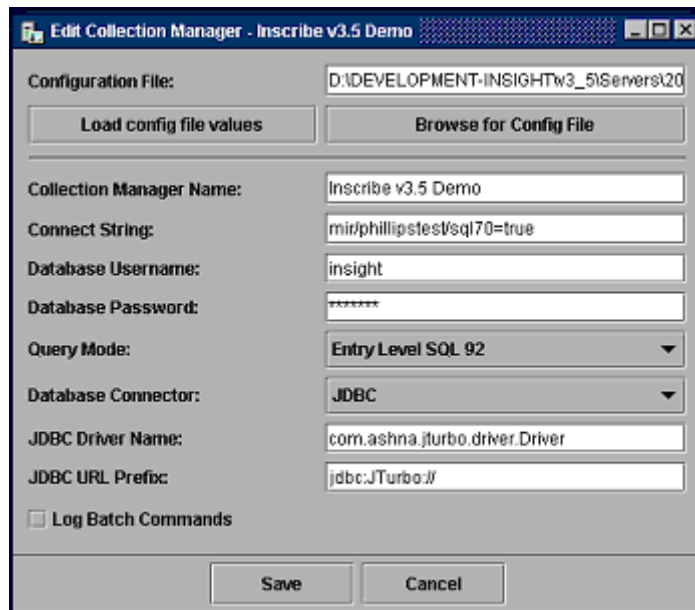


Figure 70 - Enabling Log Batch Commands

When the *Log Batch Commands* is enabled, Admin Tools begins to log queries to the *databaseconnector.txt* file. You can find this file in the *InsightAdministration* folder.

You can navigate to that folder in your directory and view the databaseconnector.txt file.

Another common error is not having the *Primary Object Table* and *Primary Object Key* defined in the *Tables* Folder.

1. When establishing which table(s) the indexed fields will originate from, the main table must be defined. Then, the indexer will know where to relate the indexed data and on what field to base the relationship.

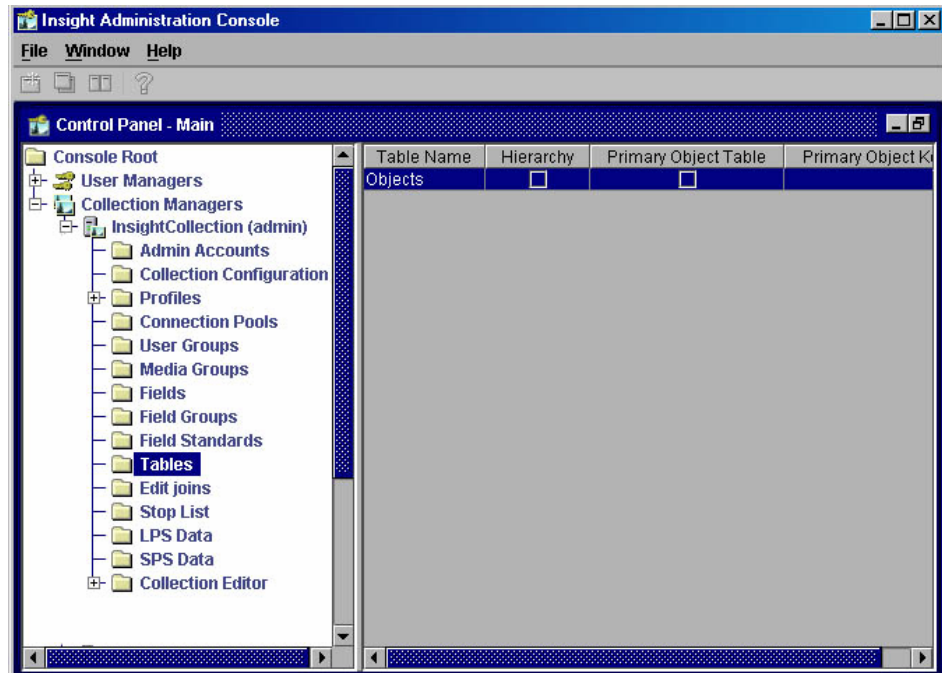


Figure 71 - Table Where Indexed Fields Originate

For example, if Objects is the only table in a flat database structure, it will be considered the main data table from where the data is derived. Therefore, the Primary Objects Table field must be selected and the Primary Object Key must be set to the field that is chosen to uniquely identify each record. However, if the database is in a relational structure, then the table that is considered to be the main table, must be selected as the Primary Object Table, and the Primary Object Key must be the field that is used to relate to these tables.

2. A typical problem that is often encountered is not having the fields in the Grouping Table and Grouping Field Name populated in the Fields table. The Grouping Table tells the indexer which table the row information is being drawn from, and the Group Field Name specifies which field is being used to uniquely identify that row of information.

Field Name:	Dimension
Field Display Name:	Measurement Dimension
Field Group Name:	Measurement
Table Name:	Measurement
Joined Tables:	Measurement => MeasurementToObjectMap
Delimiter Type:	Multi-field Name
String Type:	Expandable Short String
Field Type:	String
Hierarchy Mode:	None
Hierarchy:	None
Grouping Table	MeasurementToObjectMap
Grouping Field Name	MeasurementID
Preferred Field (Optional)	
Display Order	12
<input checked="" type="checkbox"/> Keyword Searchable	<input type="checkbox"/> Search Pick Field (browser)
<input checked="" type="checkbox"/> Displayed in Data	<input type="checkbox"/> Data Field Searchable (browser)
<input type="checkbox"/> Fuzzy Date Field	

Figure 72 –Identifying Group Field Name

For example, if the *Field Name* is Author and the data is being grouped from the *Objects* table (the main table in a flat database structure), then the *Grouping Table* would be populated with the table name *Objects*, and the *Grouping Field Name* would be populated with the field name *ObjectID*, because it is the unique value that is being used to identify each row of information in the *Objects* table.

However, if this was a relational database and the information was coming from two tables, this would be different. The *Grouping Table* name would be the name of the table in which the row information would be coming from, and the *Grouping Field Name* would come from the unique identifier that identifies that row of information.

For example, you have an Artist table and a Nationality table. The Artist table contains all of the data that describes the Artist and the Nationality table contains the various types of nationalities that relate to Artists. So, the Artists would be the *Grouping Table*, because Artist information is what we are looking for; and ArtistID would be the *Grouping Field Name*, because this is what relates the artist to a nationality.

On Occasion the Insight Indexer will fail when it attempts to transfer the data from the IT(Insight temporary) to the DT (Destination Tables) tables. This failure is generally caused by a database timeout. Below we have provided the queries used to transfer this data.

1. If you are indexing ALL fields using the Insight Indexer:

```
DELETE FROM DTTermObjectMap
DELETE FROM DTTerms
DELETE FROM DTValues
DELETE FROM DTValueToObject
```

```
INSERT INTO DTTermObjectMap SELECT Distinct * FROM
ITTermObjectMap
INSERT INTO DTTerms SELECT * FROM ITTerms
INSERT INTO DTValueToObject SELECT Distinct * FROM
ITValueToObject
INSERT INTO DTValues SELECT * FROM ITValues
```

2) ** If you are indexing selected fields using the Insight Indexer:

Note: Replace the IN (...) with the field ID's you have indexed separated by a comma. You will find the IDs in the IRFields Table

```
DELETE FROM DTTermObjectMap WHERE FieldID IN (...)
DELETE FROM DTTerms WHERE TermID NOT IN (SELECT TermID FROM
DTTermObjectMap)
```

```
DELETE FROM DTValues WHERE FieldID IN (...)
DELETE FROM DTValueToObject WHERE ValueID NOT IN (SELECT
ValueID FROM DTValues)
```

```
INSERT INTO DTTermObjectMap SELECT Distinct * FROM
ITTermObjectMap
INSERT INTO DTTerms SELECT * FROM ITTerms
INSERT INTO DTValueToObject SELECT Distinct * FROM
ITValueToObject
INSERT INTO DTValues SELECT * FROM ITValues
```

3) ** If you are indexing using the InScribe Indexer:

```
DELETE FROM DTTermToEntityMap
DELETE FROM DTTermObjectMap
DELETE FROM DTTerms
DELETE FROM DTValueToEntityMap
DELETE FROM DTValueToObject
DELETE FROM DTValues
DELETE FROM DTEntityToEntityMap
```

```

INSERT INTO DTTermToEntityMap SELECT Distinct * FROM
ITTermToEntityMap INSERT INTO DTTermObjectMap SELECT Distinct *
FROM ITTermObjectMap INSERT INTO DTTerms SELECT * FROM ITTerms
INSERT INTO DTValueToEntityMap SELECT Distinct * FROM
ITValueToEntityMap
INSERT INTO DTValueToObject SELECT Distinct * FROM
ITValueToObject INSERT INTO DTValues SELECT * FROM ITValues
INSERT INTO DTEntityToEntityMap SELECT Distinct * FROM
ITEntityToEntityMap

```

Section 3: Managing Media

LPS, SPS and Image Files

Insight accommodates a wide range of storage structures through the use of a segmented URL path. Any time a piece of media is requested within Insight, these segments are joined together to form a whole URL path to the requested media.

The segments are referred to as SPS (Storage Path Segment), LPS (Logical Path Segment), and filename.

The SPS refers to the machine on which the media resides.

The LPS refers to the subdirectory structure between the SPS and the filename.

The following is an example of how this URL is formed.

Storage Path Segment/Logical Path Segment/File Name

(e.g., <http://Insight.lunaimaging.com/dalton/size4/> + Disc0004/ + 00044001.jpg)

To understand this even further, you will need to look at the underlying table structure. All media content contained in Insight must have references in the IRIImageFiles table. This table is key to the retrieval of media within Insight. This information is produced using the Media Batches tool within the Collection Editing section of Admin Tools.

Information from the IRIImageFiles table provides a map for the retrieval of media content within Insight. The following pieces of information are pulled from this table based on the ImageID.

1. A size identifier (0-8) identifies which size will be retrieved. The size will determine which SPS is used.
2. LPSID determines which LPS to use.
3. Format help to specify the appropriate SPS.
4. File Name determines which file to load.

CREATE NEW LPS

The LPS (Logical Path Segment) refers to the subdirectory structure of images and refers to the intermediate directories between the SPS and individual media files. Any directory structure can be accommodated within Insight. Some Insight installations opt to create directories according to internal directory structure conventions. The LPS Data tool permits administrators to create and manage the LPS IDs and LPS names for a particular collection.

1. Right click the **LPS Data** folder on the navigation tree to create a new LPS reference.
2. Select New and a blank *Edit LPS Data* console will be available.
3. *LPS ID* – Enter the logical path segment (LPS) ID. The LPS ID field will only accept an LPS ID not already in use.
4. *LPS* – Enter the logical path segment (LPS).
5. Once the Edit LPS Data console has been configured properly, click Save.

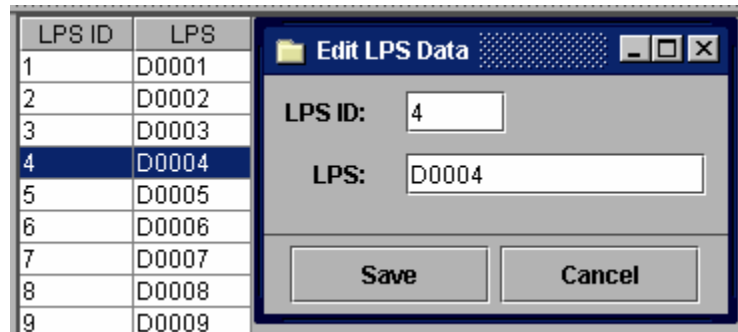


Figure 73 - Create New LPS

EDIT LPS REFERENCE

To edit an existing LPS reference, follow the steps below:

1. Select the LPS Data folder on the navigation tree. Double-click the record set you wish to edit.
2. The LPS value describes the directory structure or path to a set of media files. In order for Insight to locate and display an image, the URL to the image must be accurate. The Admin utility's Media Batch tool automatically enters the LPS values when you process a batch of images or media files.
3. A case where you may need to edit an LPS value is if you renamed the output directory. You would need to change the LPS to reflect the change to the file system directory.

CREATE NEW SPS REFERENCE

The Storage Path Segment (SPS) refers to the machine on which the images, accessed in Insight reside. This is a partial URL to the media files stored on the image server. To make a complete URL, the system combines the following: SPS/LPS/File Name. SPS can be used to direct clients to different locations for image retrieval.

1. Right click the SPS Data folder on the navigation tree to create a new SPS reference. Click New and a blank Edit SPS Data dialog appears.
2. *SPS Number* - If you are creating a new SPS grouping, use a new SPS Number (numeric value identifying a SPS group) and make sure to create a SPS reference for each media type and size you need.

Figure 74 - Create New SPS

3. *Resolution Size*.- This numeric value (0-8) represents the bin size.
4. *Collection ID* - Provide a numeric value for the collection.
5. *Media Type* - Choose the appropriate Media type.
6. *Format* - Select the appropriate Format type
7. *URL* - Provide the URL that points to source images for this size.
8. Once you have completed your edits, click Save to apply the changes. You will need to repeat this process as many times as you have image sizes and for each multimedia format.

REVIEW SPS REFERENCE

To review an existing SPS reference:

1. Select the SPS Data folder on the navigation tree, and double-click the record set you wish to edit.

2. The selected SPS field values will appear in the Edit SPS Data window.
3. After making the desired edits, click Save to apply changes. To close the window ignoring any edits, click Cancel to return to the main dialog panel.

SID Server Installation for Insight

To install a SID server on your NT workstation, do the following:

1. Install Active Perl
2. Install LizardTech NT Sid Server

Note: A Unix/Linux version of the MrSid Sid Server is also available. Contact Luna for installation and configuration information.

Configure Sid Server:

Configurations take place in the Internet Service Manager. To launch the Service Manager, go to Start Menu/ Programs/ Window NT 4.0 Option pack/Internet Information Server/ Internet Service Manager. *Do not use the HTML-base Internet Service Manager.*

Add index.plx to the list of default documents:

1. Select the default web site
2. Right-click on the icon and choose Properties
3. Select the Documents tab
4. Click Add
5. Type "index.plx"
6. Click PK
7. Click OK on the Documents tab

Set sid/bin directory executable.

1. Right-click on the sid/bin directory
2. Select Properties
3. Select the Directory tab
4. Locate the Permissions radio button (at the lower left-hand corner)
5. Select the Execute (including script) option
6. Click OK

Make the sid/bin/tmp directory writable:

1. Right-click on the sid/bin/tmp directory
2. Select Properties
3. Using the radio buttons, set the Permissions to Script
4. In Access Permissions, enable Write access
5. Click OK

Create an alias for SID collection images:

1. Right-click on the sid directory
2. Select New / Virtual Directory
3. In the “New Virtual Directory Wizard” provide an alias for your SID directory.
4. Next, enter the physical path of your SID Image Directory.
5. Using the radio buttons, set the Permissions to Allow Read and Script Access.
6. Select Finish.

Test the Image Server:

In any web browser, navigate to **http://127.0.0.1/sid/** (substitute the IP address of the installation machine for the above address). The default Server index page displays. Click on the category containing the LizardTech Sample Images. A linked thumbnail image should display. If the thumbnail image does not display, try rebooting the computer.

MODIFYING AN EXISTING SID SERVER REFERENCE

To transfer an existing SID Server to another NT server, follow the steps below:

1. Follow all the steps for Sid Server Installation for Insight.
2. In the *Collection Manager*, click on the *SPS Data* folder and select a media type with a SID format from the IRSPS table.
3. In the URL field, provide the URL of the new SID server. Make sure to include the dll files. See an example below:

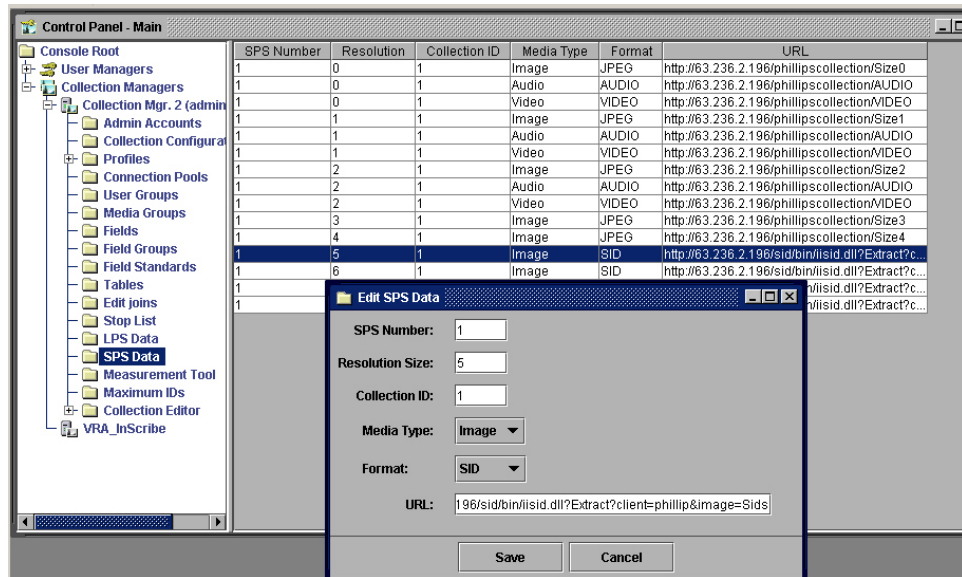
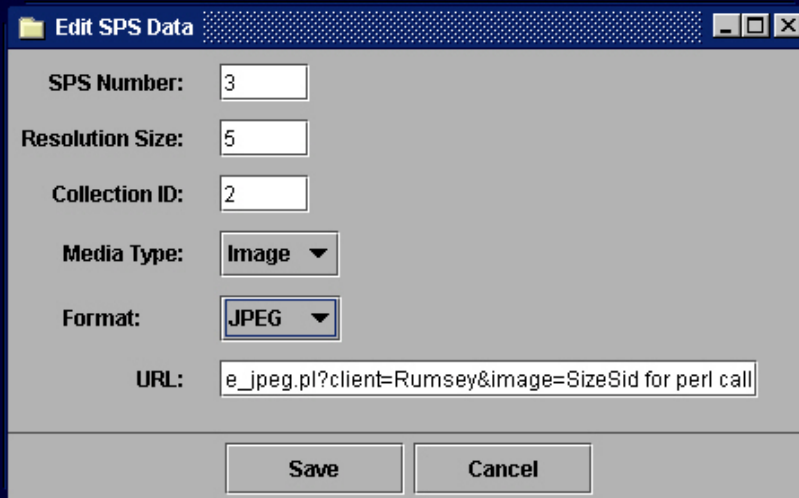


Figure 75 - Editing URL for New NT SID Server

To transfer an existing Unix SID Server to another Unix SID server, follow the steps below:

1. Follow all the steps for Sid Server Installation for Insight.
2. In the *Collection Manager*, click on the *SPS Data* folder and select a media type with a SID format from the IRSPS table.
3. In the URL field, provide the URL of the new Unix SID server. Make sure to include the perl files. See an example below:



The screenshot shows a dialog box titled "Edit SPS Data". It contains the following fields and values:

- SPS Number: 3
- Resolution Size: 5
- Collection ID: 2
- Media Type: Image
- Format: JPEG
- URL: e_jpeg.pl?client=Rumsey&image=SizeSid for perl call

Buttons for "Save" and "Cancel" are located at the bottom of the dialog.

Figure 76 - Edit SPS Data

Using Media Batches

The purpose of the Media Batches utility is to automate the process of generating derivative images and media files from batches of source images. The media batches utility has many valuable features that are essential to overcoming the manual procedures that otherwise would be required to produce derivative images. Some valuable features include:

- Automatic naming of derivative image files.
- Automatic organization of derivative images into folder hierarchies.
- Support of popular and specialized formats for source images.
- Support of standard web-based media formats for derivative images.
- Flexible directory and media access for both source and derivative images.
- Support for multimedia formats, such as QuickTime, MP3, QTVR, and more.
- Selection of specific source images within directories for inclusion in production runs.

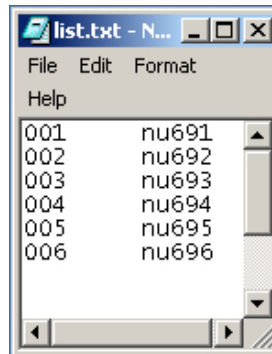
Processing a Media Batch

To process a new batch of media files for integration into Insight, follow the procedures below:

1. Organize the data and media which you would like to process. Make sure that you have a unique identifier in the data which relates to the images you wish to process. A unique identifier is generally a unique or individual data record that relates to only one media record. (You can process more than one media record to one single data record, but this is rare.)

Note: It is recommended that you have descriptive data and related media identifiers (unique identifiers) to load into your database before you process your media.

In the example below, the names of the media are on the left side of this text file and the corresponding unique identifiers are on the right.



2. Next, you will need to index the data. You do not need to index the entire database at this time, but you need to at least index the field that contains your unique identifier, or linking information. For more information, see *Chapter 4, Section 2, Invoking Indexer*.
3. Use the Media Batch Tool to process the media. Log on to your Collection Manager. In the Collection Manager, open the Collection Editor folder and then right click **Media Batches**, and select **New**. The Media Batch window opens.

Media Batch

Batch Name: D0127

Profile: Insight

Destination: D:\ImageBatch

LPS Directory: D0127

Log File: D:\ImageBatch\ImageBatch.bt

Start Media ID:

Mapping File: D:\ImageBatch\text.bt Field: Accession Number

Object Links: nu691, nu692, nu693, nu694, nu695, nu696

Source Files: 0002.tif, 0003.tif, 0004.tif, 0005.tif, 0006.tif, 0007.tif

Process List: PENDING - D:\ImageBatch\0001.tif, D:\ImageBatch\<SPS-D

Figure 77 - Processing a Media Batch

All the fields are initially empty in the form for creating a new media batch, except for the LPS Directory field. The LPS Directory provides the logical path structure to the derivative images being generated. The LPS is used in conjunction with the storage path segment and the filename to generate the media file URL during an Insight client session. The LPS Directory is pre-assigned in most cases, when a new Media Batch is opened. This is so you do not inadvertently delete a former LPS or create a duplicate LPS ID.

To change the LPS Directory, open the folder option Maximum IDs in Admin Tools. For more information, see *Chapter 4, Section 2, Sequencing Maximum IDs*.

In the following example, we would like our media batch to have the LPS Directory start at D0030, so we name the Max Batch ID 29, so the next time we open the Media Batch tool, it will open as D0030.

Max Group ID	Max Batch ID	Max Media ID	Max User ID	Max Change ID	Max Search Query ID
1000	29	9637	0	0	0

Figure 78 - Maximum IDs

Note: You can only increase the Max Batch ID number. The reason for this is to avoid having duplicate LPS IDs in your collection.

Once you have changed your Max Batch ID, reopen a new Media Batch. You do not need to rename your LPS Directory. You may want to avoid creating repeating LPS Directories for more than one Media Batch.

To view the LPS ID and LPSs already in use, go to the folder named *LPS Data* in Admin Tools.

4. *Batch Name* - The Batch Name serves as a unique identifier for the group of source media to be processed. This name should reflect the media that you are processing. For example, if you are processing maps, you may want to name the batch *Map*. Also, naming the batch the same name as your LPS Directory may help cut down on confusion.
5. *Profile* - The profile defines the set of derivative images to be generated for each source media file and provides a set of processing rules, such as stored filenames and directory structures. You have the ability to create numerous profiles, which in turn can be used to create various images and used to customize the results of your media batch.

Note: Refer to the section, *Creating an Image Profile*, in Section 3 of this chapter, when you select the *Configure* button on this dialog to invoke the *Image Creation Profile* dialog or window.
6. *Destination* - The destination directory is the location on your local file system where the derivative images being generated should be written. The destination may be the final destination on your server or it may be a temporary destination for the images. When your processing is complete, you will want to move the processed media to their final location, which is entered in the SPS Data folder (see *Chapter 4, Section 3, Create New SPS Reference*).
7. *LPS Directory* - Verify if this directory is correct. See step 3 for instructions to change the LPS directory. Make sure you do not assign an LPS that has already been used in this collection.
8. *Log File* - Choose the location and name of the Log File. The log file is a tab-delimited text file that is generated from the media processing activity. Name the log file something that easily relates to the media you are processing, such as the Batch Name or LPS Directory name. This will minimize the chance of confusion when creating your log file.

The field values generated are: Date/Time, Source File, Resolution Size Being Generated, Output Directory, Derivative File Name, Scale Ratio, Width, Height, Compression Level, and Quality Level. You may import the log files into a database table to track processed source files and the generated derivative images.

You have the option of where to save the log file and what to name the file. To designate a location for the Log File, click the Browse button to the right of Log File on the Media Batch console. It is suggested that you save the file in the same folder that they select as the Destination folder. In this case you should open the Destination folder and, under file name, type a name for the Log File and then a .txt or .log extension. Once this is done, click Open.

9. **(Optional) Starting Media ID** (numeric value) - Generated media IDs will begin with the specified start (media) ID if it is not already in use. Not specifying a starting media ID results in the highest available ID being used.

Example: If the available IDs are 423, 645, and 800; the system will use ID 800.

10. **Mapping File.**- The mapping file is a two-column, tab-delimited text file. It lists the source media file, minus the file extensions in the first column; and the object link value (such as accession) in the second column. This tab-delimited text file should be created by the administrator. The mapping file facilitates the linking of descriptive object records to media files.

The mapping file lists the name of the media that you would like to process, minus the extension in the left column, and the unique identifier that is in the database in the right column. This mapping file is what creates the link between the data and the processed media in your database.

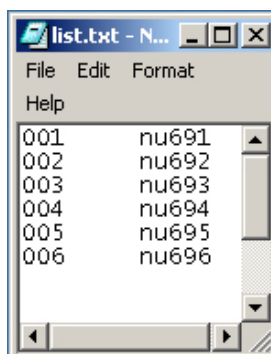


Figure 79 - Mapping File

To create the mapping text file, open a spreadsheet application and list the source media files to be processed in the first column. Next, in the second column, provide the object link value associated with the appropriate source media file. Save the file to your file system as a text (.txt) file, then select Browse from the Media Batch configuration window and navigate to it. Select the mapping file, then click load under the Object Link list.

11. *Field* - The field function enables you to choose which data field the Object Links and Source Files will link to the media. Choose a field by clicking on the visible field name. This field is now available for linking. Only one field may be chosen from the drop down list.

For example, a user would like to process an image, which has an object link named nu689, which will be linked to a source file called figure14.jpg (object links and source files are explained later). They know that the field Accession Number (which is available from the drop down box to the right of Field:) contains an object record named nu689 in the database. This link between the object link nu689 and object record in the field called Accession Number is confirmed once the User clicks the Match Objects & Media button. This button will display all object links that have a corresponding link in the database based on the field they selected.

If the particular object does not have a link, it will not be automatically moved to the Process list (database) once the Match Objects & Media button is selected. You will still see it in your Source File list.

If you would like to select a field that is not in the Field list, you will need to add that field and data into your database. You will need to reindex the new field before it will be available here (see *Chapter 4, Section 2, Invoking Indexer*).

12. *Object Links*.- The object link values are listed in the selected mapping file. To load the mapping file, click Load. The mapping file destination must be entered in the mapping file column or the object links will not load.
13. *Source Files*.- The source files are records that are related to an image. It can be a graphic (such as JPEG, TIF), sound (for example, Wav, MP3), or other multimedia files (such as Mov).

Click Load, navigate to the directories containing the source files. Select the source files that are listed in the selected mapping file. The object link list should contain the object link values for the source files you select.

Note: You are able to select one to many media items at a time. To select more than one media item, select the first item and hold down the Shift key, select the last media item in the group that you would like to bring into the Media Batch. Now, there should be numerous media items selected. Click open, this will bring the selected media into the Source Files field.

The Media Batches utility currently creates JPEG and SID image file formats. Original images can be .tif or .jpeg files. Luna suggests using the JPEG file format for resolutions up to 1536 (lengthwise). By default, the Insight profile will generate the standard set of derivative image sizes and formats commonly used for Insight installations. The Insight profile consists of 5 JPEG resolutions (spanning from 96 pixels lengthwise to 1536 pixels lengthwise) and a single multi-resolution encapsulated SID image file.

14. *Match Objects & Media* - Compares the Object Link list from the selected mapping file with the selected Source files and insert the matching pairs into the Processing List. Only media that match will be linked. If a source file and object do not link, that source file will remain in the Source Files column.

Note: You are permitted to link source files and data by hand. To do this they select the object link and source file they want to link and click the >> button. The object link and source file will be added to the Process List. This link, and any media files that have not yet been processed, will be labeled as PENDING.

To remove or unlink source files and data (object link), they will click on them from the Process List and click the << button. This will put the source files and object links back in their appropriate columns. They will be available to link again later.

15. *Process List*.- The process list contains all media that will be and has been processed in a particular media batch.

After processing a media batch, a verification step is performed to check whether all media records were committed to the database correctly. If there is a discrepancy in the media record count, you will be alerted by a warning message.

Running Media Creation Process

Once the Process List is populated with linked Objects and Source Files, they will be categorized as PENDING in the Process list window. This means that the files have not been run but are ready to be. To run the media, click *Start*.

The media will run. A Media Creation window will come up and you can monitor the processing progress.

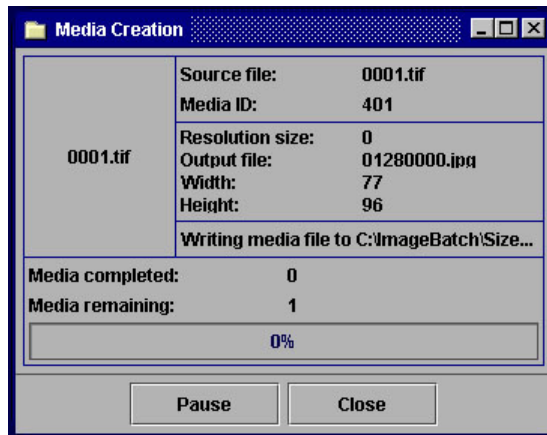


Figure 80 - Monitor Progress for Media Creation

When the media has been processed correctly they will be labeled PROCESSED-SUCCESS in the Process List column.

Also, you may browse to the destination location where the media has been processed. They will find the Log File and the processed media formatted to the Profiles standards, which are set in Profile in the Media Batch window. Also, in the labeled folder, LPS DATA in the navigation tree, the LPS directory from the processed

media batch will be added to the LPS ID and LPS fields. (For additional information on *LPS Data*, refer to *Chapter 4, Section 3: Managing Media* in this manual.)

Once the media batch has been processed, you can save the batch by selecting **Save** in the Media Batch dialog or window.

Note: If you stop the media batch, lose connection to your computer, or close the Admin Tool, the Media Batch will stop where it is. If you open your saved Media Batch again and click start, it will pick up where it left off.

Once you have **finished running** your media batch, you will want to verify that everything processed correctly. To do this, you will need to follow the next few steps below.

- To view all saved, or processed media batches, you need to click the **Media Batches** folder (in the navigation tree), under the *Collection Editor* folder. Double click on a particular media batch to open it. If you right click on a media batch that has already run, you will be presented with several options. Click on *Tools* for more options.

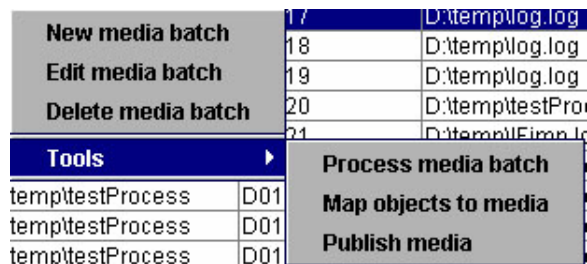


Figure 81 - Working with Media Batches

- After processing your media batch, you need to check the *map object to media* link. This allows you to view the media you ran and then verify that the data link is correct.

Map objects to media – This option opens the Manage Objects-to-Media Mappings window for the selected Media Group. Only the Media Records processed in the selected Media Group that have not yet been published will be available. You have permission to link, unlink, and change links with this tool. (To learn more about the *Map objects to media function*, refer to the *Mapping Objects-to-Media* in Section 3 later in this chapter.)

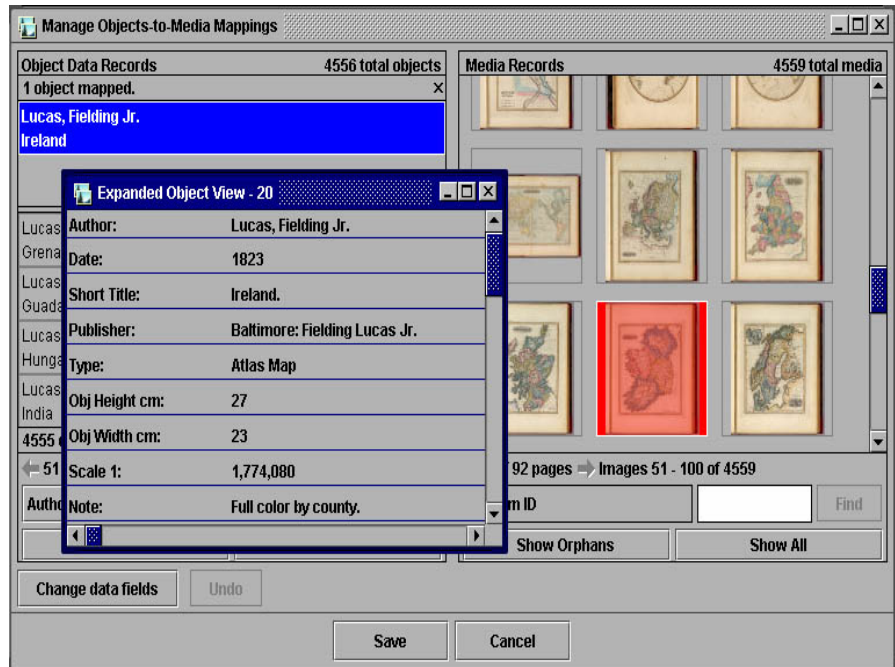


Figure 82 - Objects to Data Expanded View

- Next, you would want to publish the media. This is done once the administrator is confident that the processed media is correct.

Publish media – Use this option once the processed media group is correct (as deemed by an administrator), and ready to be published into a collection. If you would like to publish the processed material in a New Collection Group, you will fill in the new group name and then select *Publish To New*. However, before you publish the media, you need to physically move the processed media from the original destination location to the location dictated in the SPS. This will ensure that the proper media is available when it is published.

If you desire to publish the processed material into an already existing group, you will select the desired group name and select *Publish To Existing*.

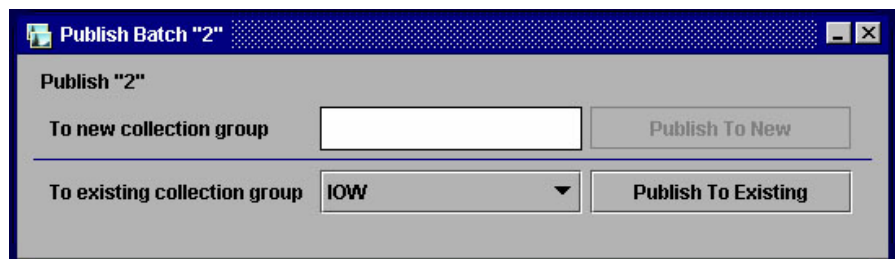


Figure 83 - Publishing Media Batches

When you publish media to either a new collection group or an already created collection group, you will be prompted with a window that asks if you wish to proceed with publishing the media. If you do, then select Yes, if not, then click No.

4. Finally, update the thumbnail caches. This is done by *Invoking the Indexer* which is located in the Collection Editor folder. In the Indexer Setup, only select *Update Thumbnail Caches* and enter the Server Host and Server Port, then start indexing.

Note: Make sure you deselect any default settings, which may be checked in the indexer.

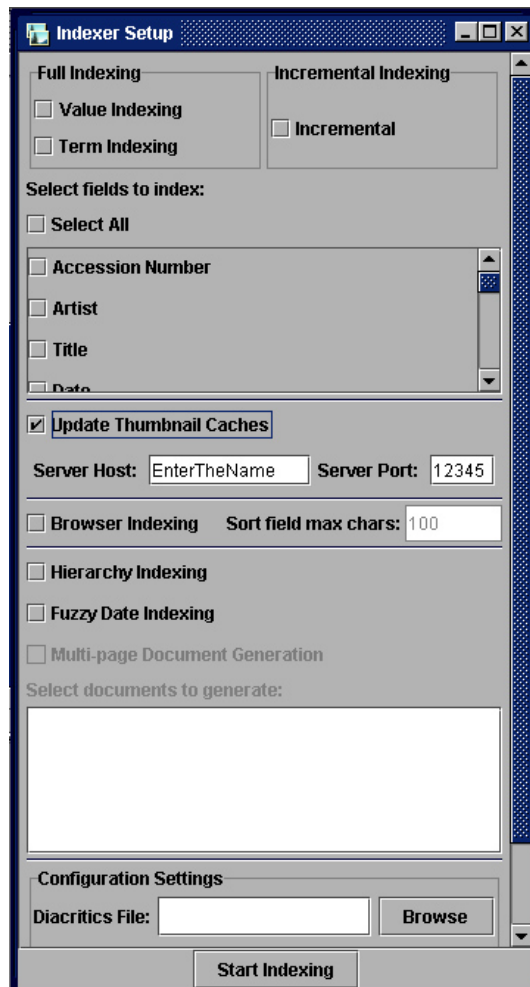


Figure 84 - Indexer Setup

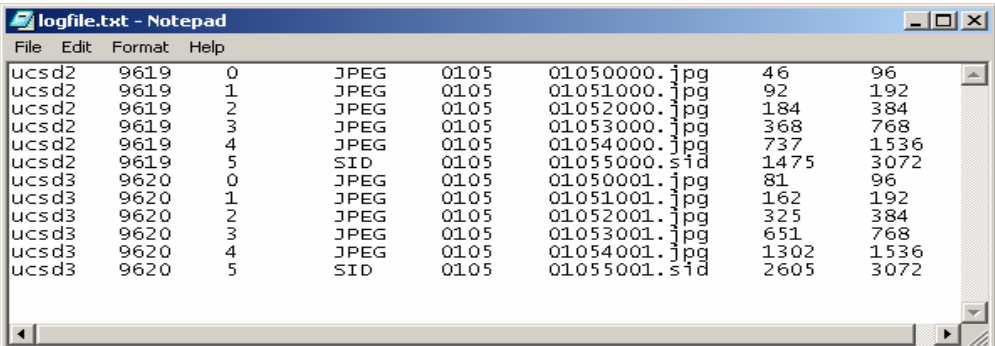
Once you have updated the Thumbnail Cache, your media should be available in your Insight collection. Then, to review your log file, see *Reviewing and Modifying Mapped Media* later in this chapter.

Now, to use the other options in the Media Batch tool, follow the instructions below:

5. *New media batch* – If you select *New media batch*, a blank Media Batch window appears. They can design a media batch as described in the section, *Processing a Media Batch*
6. *Edit media batch* – Enables the media batch that you select to be available with all of its fields pre-assigned. You can now edit or change this media batch.
7. *Delete media batch* – Deletes the media batch from Admin Tools. You will be prompted with the message “Are you sure you want to delete the selected media batches?” If you are sure that you want to delete the selected media batch, click Yes; if not, select No.
8. *Tools* – You will have the option to Process media batch, Map objects to media, and Publish media. For more information on Map objects to media or Publish media see steps 2 and 3 above.
9. *Process media batch* – Enables you to process or run a media batch that is already created and saved. When this option is selected, the selected Media Batch window opens. Click start to process the media batch. You may choose to use the same set-up for every media batch, with only a unique LPS Directory, which will be automatically assigned. This way, you can process your media in the same fashion every time.

Reviewing and Modifying Mapped Media

After you have processed a media batch, Insight Admin Tools creates a log file listing the field values for your image files. The media creation log file includes the media type codes for easier identification of your image files. An example of a type code would be 01052000.jpg. Your media creation log file can be found in the directory that you originally assigned while you were creating a new Media Batch (for additional information, refer to *Chapter 4, Section 3, Processing a Media Batch*).



Object ID	Batch ID	Index	Media Type	Code	Filename	Value 1	Value 2
ucsd2	9619	0	JPEG	0105	01050000.jpg	46	96
ucsd2	9619	1	JPEG	0105	01051000.jpg	92	192
ucsd2	9619	2	JPEG	0105	01052000.jpg	184	384
ucsd2	9619	3	JPEG	0105	01053000.jpg	368	768
ucsd2	9619	4	JPEG	0105	01054000.jpg	737	1536
ucsd2	9619	5	SID	0105	01055000.sid	1475	3072
ucsd3	9620	0	JPEG	0105	01050001.jpg	81	96
ucsd3	9620	1	JPEG	0105	01051001.jpg	162	192
ucsd3	9620	2	JPEG	0105	01052001.jpg	325	384
ucsd3	9620	3	JPEG	0105	01053001.jpg	651	768
ucsd3	9620	4	JPEG	0105	01054001.jpg	1302	1536
ucsd3	9620	5	SID	0105	01055001.sid	2605	3072

Figure 85 - Reviewing and Modifying Mapped Media

Creating an Image Profile

The **Image Creation Profile** interface (refer back to *Section 3, Step 3 in Processing a Media Batch*) allows the collection builder to create profiles for derivatives, which specify the size and format of output media files. Profiles are a set of derivative sizes and file types that are generated for each source media file. The source media files enable the production of multiple types of derivative images for each source image in a batch. Profiles need only to be specified once, and then can be applied repeatedly to successive batches of source images.

1. Click the **Configure** button (on the *Media Batch* dialog) to open the *Image Creation Profile*. The Image Creation Profile enables you to create, view, edit, copy, and delete profiles.
2. When the Image Creation Profile opens, you will see the present profile settings. Not all profiles can be changed in this view. There is a default Insight Profile that cannot be altered. This profile contains the specific settings needed to process images for Insight using Luna naming conventions (discussed later in this chapter).
3. You may now copy the profile or create a new, blank profile by selecting **New**. To change the profile, select **Copy**. This will bring up a copy of the active profile. In this view, you are able to give the profile a new name, assign a URL Prefix, a SID URL Prefix and change other items from the original profile such as Image Type settings and select **Preserve Filenames** or **Preserve Directory Structure**.
4. Clicking the *Preserve Filenames* option in the Profiles configuration window will preserve the source file names and only apply an extension change.

This is useful if the user would like to keep or preserve their file names during media processing. Examples of users' filenames are nu689, nu690, or whatever else is listed in the object link function of the Media Batch tool.

If the user chooses to **Preserve Filenames** for the selected JPEG or SID sizes, the processed media will have the same name (but the sizes will vary depending on the Profile used). For an image that is called nu690, and **Preserve Filenames** is selected, all the sizes created will still be named nu690 instead of having a unique 12- character number, which Luna will create.

If **Preserve Filename** is not selected, the media will be renamed by Luna naming conventions.

The Luna naming convention is a 12-character format (e.g., 00012001.JPG), made up of four parts:

- a. A Four-digit Batch ID# (ranging from 0000-9999). In the example 00012001.JPG, the batch is 0001.
- b. Single Digit Image Size Identifier. In the example 00012001.JPG, the Single Digit Image Size Identifier is 2. This is a size two image.
- c. A three-digit image sequence (ranging from 000-999). In the example 00012001.JPG, the three-digit image sequence number is 001. This is the first image in the batch 0001.
- d. A Three-Character File Format Extension. In the example 00012001.JPG, the three-character file format extension is .JPG. This is a JPEG image.

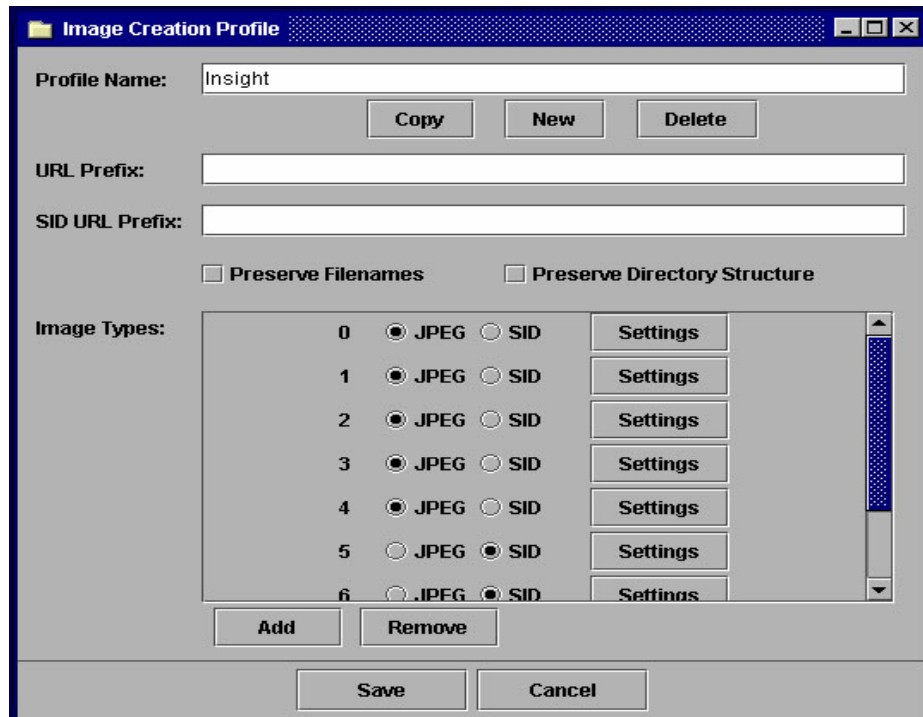


Figure 86 - Create Image Profile

Directory Structure Convention

5. If the *Preserve Directory Structure* radio box is selected for the active image creation profile, a new select button will appear to the right of the LPS Directory setting. The LPS Directory setting is the field below Destination on the Media Batch console.

Click *Select* (to the right of LPS Directory), to open the LPS Directory Structures dialog, which contains two path statements: *Default Directory* and

End LPS At. For the Default Directory, click Browse and navigate to the level where everything below will be preserved and replicated for each of the derivative image sizes being generated. For example, if your source directory path was

E:\Dalton\TIFFS\Wwm9912\Cas009\007149.tif,

And you wanted to maintain the bi-directory structure below TIFFS; you would select the TIFFS directory to be the default directory. As a result, *Wwm9912/Cas009* will be the LPS and the Size0 directory path would be:

Insight URL:

<http://luna01.dalton.org/jpegs/Size0/Wwm9912/Cas009/007149.jpg>

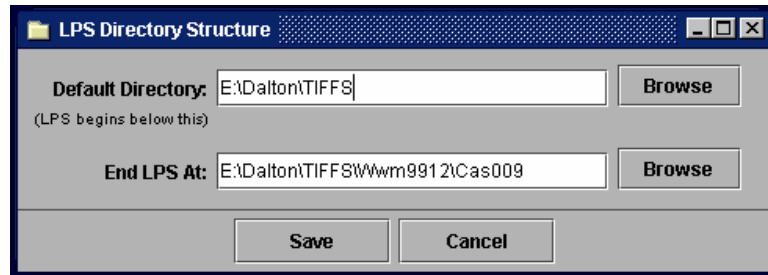


Figure 87 - LPS Directory Structure

If you choose not to select the Preserve Directory Structure, your batch process will process the images into the assigned LPS Directory listed in the Media Batch Console. Generally the LPS directory will follow a logical sequence after every batch processed, starting with D0001 and then going to D0002 and so forth. When you check the Preserve Directory structure option, this can be altered to your directory specifications.

6. In the Image Types section of the Image Creation Profile, you are able to determine the type of images that will be created (either JPEG or SID images), Insight sizes, as well as other specific settings by selecting the Settings button to the right of a particular image type.

These are the options available for the Image Type, JPEG.

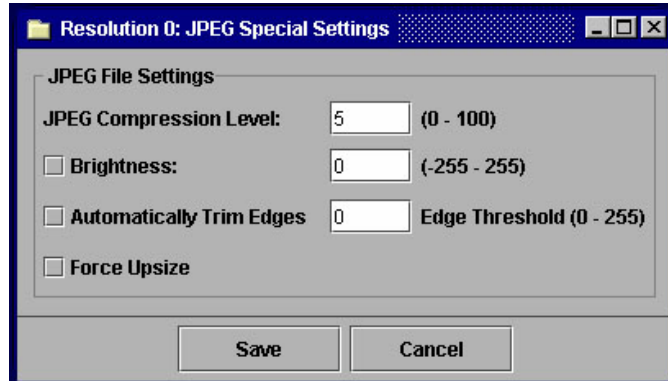


Figure 88 - JPEG Image Type

These are the options available for the Image Type, SID.

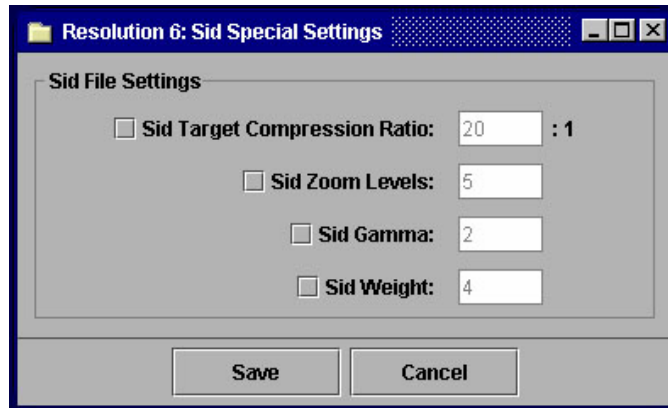


Figure 89 - SID Image Type

7. To add or remove Image Types, you will select either Add or Remove from the Image Creation Profile dialog to add or remove JPEGs and SIDs images from Insight. The Image Creation Profile option enables you to customize your images (different sizes and resolutions) as well as to add or remove images from Insight.

Sizing Parameters for Images

Below is a list of the sizing parameters for the images processed in the Media Batch function. A number in the range 0-8 represents the *bin* size. An image belongs to a bin if its longest dimension equals or is less than the pixel length of a level, but greater than the next lower bin. Generally sizes 0-4 are JPEG sizes, while 5-8 are SID sizes.

The threshold values of different bins are as follows:

Size 0 – up to 96 pixels on the long side

Size 1 – up to 192 pixels on the long side

Size 2 – up to 384 pixels on the long side

Size 3 – up to 768 pixels on the long side

Size 4 – up to 1536 pixels on the long side

Size 5 – up to 3072 pixels on the long side

Size 6 – up to 6144 pixels on the long side

Size 7 – up to 12288 pixels on the long side

Size 8 – up to 24576 pixels on the long side

Once you have completed an Image Creation Profile, you can either save, or cancel any changes by clicking either the Save or Cancel button. Then, you are sent back to the Media Batch dialog (refer to *Section 3, Chapter 4, Processing a Media Batch*).

Mapping Objects-to-Media

The Map objects-to-media tool provides you with an interface through which the relationship between published media files and descriptive records can be defined. The interface allows you to search through a collection's media files and descriptive object records to create, modify, and delete the relations between object records and media files. This tool works in a similar fashion to the *Manage Field Standard Relations* mapping utility. (For more information, refer to *Section 2, Chapter 4, Managing Field Standards Relations*.)

1. To access the Map Objects-to-Media tool, expand the Collection Editor folder, right click the Map Objects-to-Media folder and click the option to *Run Directly*. This will open the Manage Objects-to-Media Mappings window.

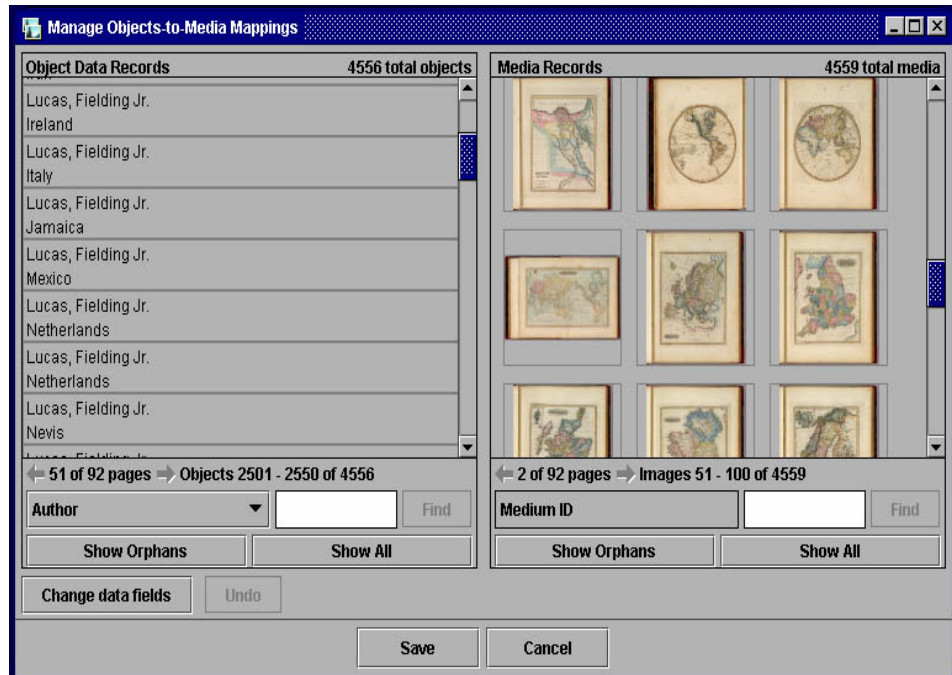


Figure 90 - Map Objects to Media

The Manage Objects-to-Media Mappings window is organized in an easy to use fashion. The left window displays the Object Data Records for the collection, while the right window displays the Media Records.

- When you click on either a Media Record or an Object Data Record, the item clicked will highlight in red. This item is now active. If the item clicked has another item or items linked to it, they will highlight in blue in the opposite window. If an item in the opposite window does not turn blue, then that item in red is an *Orphan*. An Orphan is a Media Record or Object Data Record that does not have a link, and will not be available in Insight.

To link an object data record with a particular media file, select the media file that you will map to the descriptive data record. The selected record should now have a red highlight indicating it as the active element. Double-click any media file to determine the number of object records that are mapped to that media file. The list of object records related to the selected media file will appear in blue highlight, just below the *X Objects Mapped* header, where “X” indicates the number of objects mapped to the selected media record. In order to map object records to media files, locate the object data records pertaining to the selected media file.

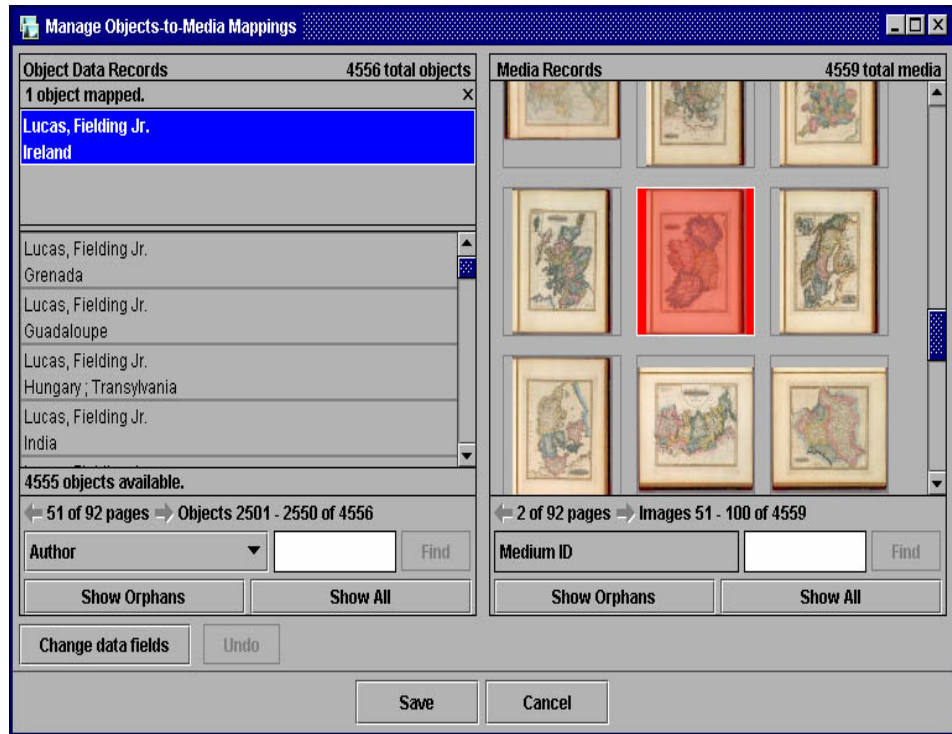


Figure 91 - Linking Object with Image

3. If the ID number for the selected media file is known (refer to *Section 3, Processing a Media Batch* in this chapter), it may be useful to search for the associated object data record using the Find function. If the known information about the media file is from another field, use the *Change data fields* function to update the display and search fields to aid you in your search.

Once you locate the Media Record you would like to link to your Object Data Record, you click on that record. You will be prompted with a Mapping Confirmation window which states that you are about to map the selected object to the selected medium, and asks if you wish to proceed. If you do, click Yes; if not, select No. If you select Yes, the link is complete.

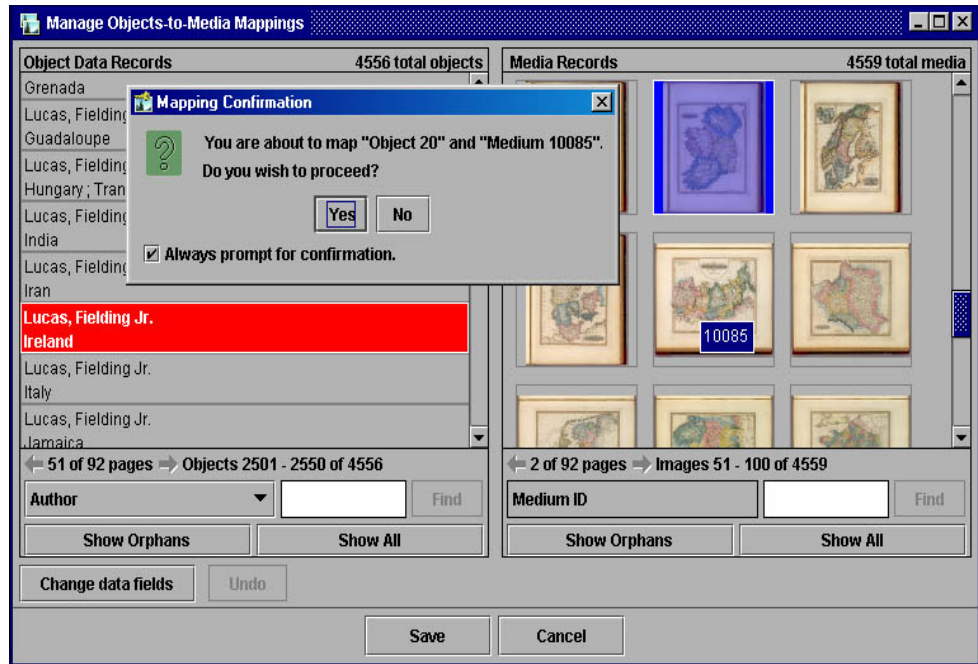


Figure 92 - Mapping Confirmation

4. The same process can be used to sever a link. Only sever a link if there already is a link between particular Object Data Records and Media Records. You can link and unlink Object Data Records to Media Records, and Media Records to Object Data Records.
5. Prior to clicking Save, you can Undo changes by using the Undo function. The changes made during a session are recorded in a temporary actions list, where most of the actions can be undone as long as the Save function has not been invoked. Once you have completed your mapping changes, click Save to apply the changes to the database.

Object Data Records

The Object Data Records, which is located on the left side of the Manage Objects-to-Media Mappings console, lists all the data for the selected collection.

1. You have the option to display two fields of data for each data record in this window. To view and change which two data fields are being displayed and in what order, click the *Change data fields* button, which is located in the bottom left corner of the dialog. This will allow you to choose which data fields you would like to display for the Object Data Records.
2. To view the entire data of a particular data record, right mouse click on the record, and select *View all data*. The data for the entire record will be available. This data, however, cannot be edited in the View setting.

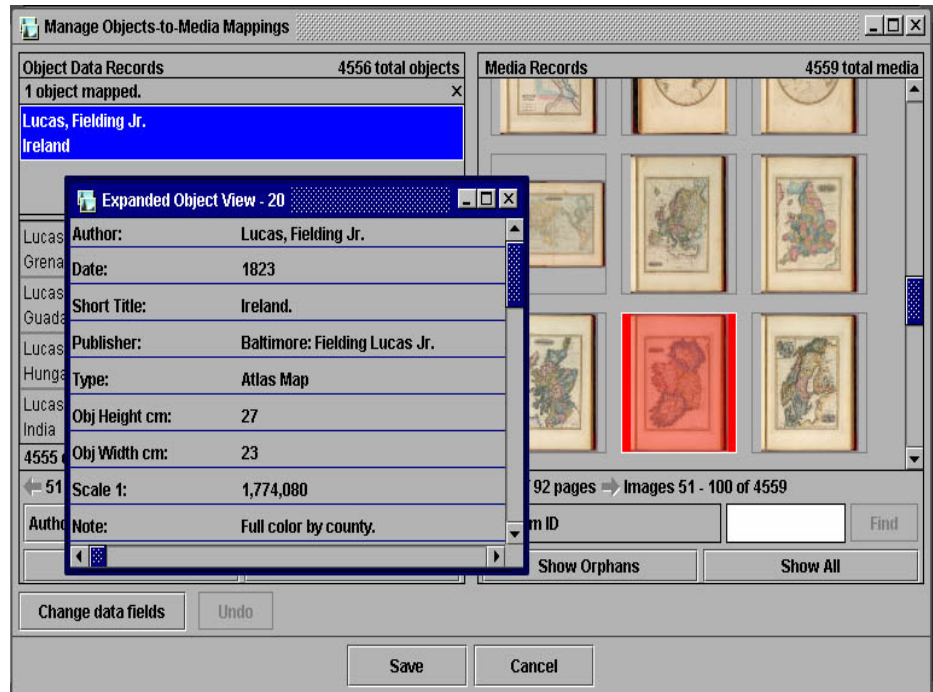


Figure 93 - Object Data Records Expanded View

3. To search for a particular image, you can type in any data associated with the active data field in the white text box. The data entered does not have to exactly match the item for which you are searching. All similar records will be displayed in the Object Data Records window when the search is complete. Once the data for the search is entered, click *Find*. The results will display in the Object Data Records window. You can change the searchable data field by clicking the *Change data fields* button and selecting the object record field in which you would like to perform the search.
4. If you scroll your mouse over a particular data record, and hold it there for a second or so without clicking on that record, the data identification number will appear. This can be useful for quickly identifying a particular data record without having to view all the data or performing a search.

If you would like to view all the Orphans, or Data Records that do not have a Media Record linked to it, you will click the *Show Orphans* button. All the orphans will now be available. To view all the data records, click *Show All*.

Media Records

The Media Records, which is located on the right side of the Manage Objects-to-Media-Mappings dialog, display any available media in the collection. When a media record is selected, granted that an object data record is not selected, the media record will highlight in red and be active.

You have the option to view a media record as a larger view. To do this, click on an image, or media record, and right click the mouse.

1. The option, *View Larger Image* will present itself. When you click this option, a larger image size will open in its own viewing window. This function is useful when trying to view a detail of a particular image.



Figure 94 - Expanded Image View

2. To search for a media record, you must know that records exact ID number. When you enter the number in the white box in the right corner of the dialog, and click Find, the result will display in the Media Records window. You can also find a particular image ID number by scrolling your mouse over a particular Media Record, and holding it there for a second or so without clicking the record. The ID number for that particular image appears. This can be useful for quickly identifying a particular Media Record without having to perform a search.

If you would like to view all the orphans, or media records that do not have an Object Data Record linked to it, you will click the *Show Orphans* button. All the orphans will now be available. To view all the media records, click *Show All*.

Using QTVR within Insight

Creating Links Between QTVR Objects and Images in Insight

Administrators can import Quick Time Virtual Reality (QTVR) movies into the Insight environment and they can also create 'hot spot' links from the QTVR environment into images in Insight. To create links between QTVR objects and images in Insight, users must have both the 3.5 Insight JVA client and the QTVR Authoring environment on the same workstation.

Note: We are assuming that the person that will be creating the links between QTVR objects and the images in Insight has an understanding of how to use QTVR Authoring Studio. If they have any questions regarding QTVR, contact Apple or refer to the *Apple QuickTime VR Authoring Studio* manual.

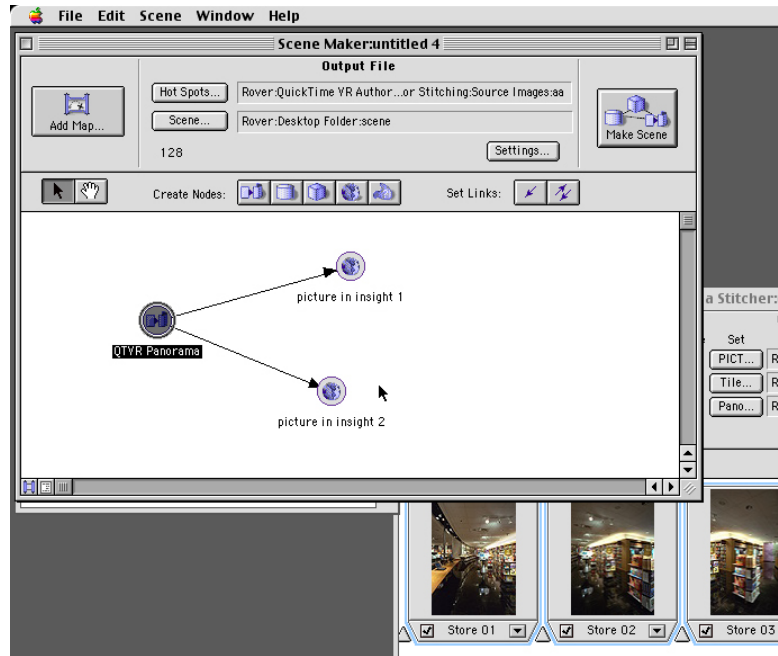
Follow the steps below to create links between QTVR objects and images in Insight.

1. In Insight, identify the images to be linked from the QTVR object. For each image:
 - a) Open the image in the Image Workspace.

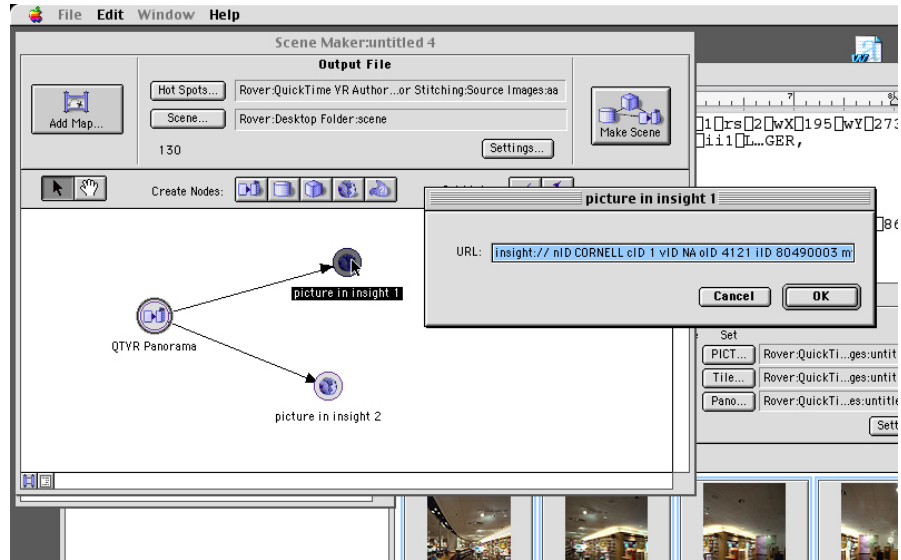


- b) Press CTL+L. You will see a dialog that confirms that the link was copied to the clipboard.
 - c) Close the image.

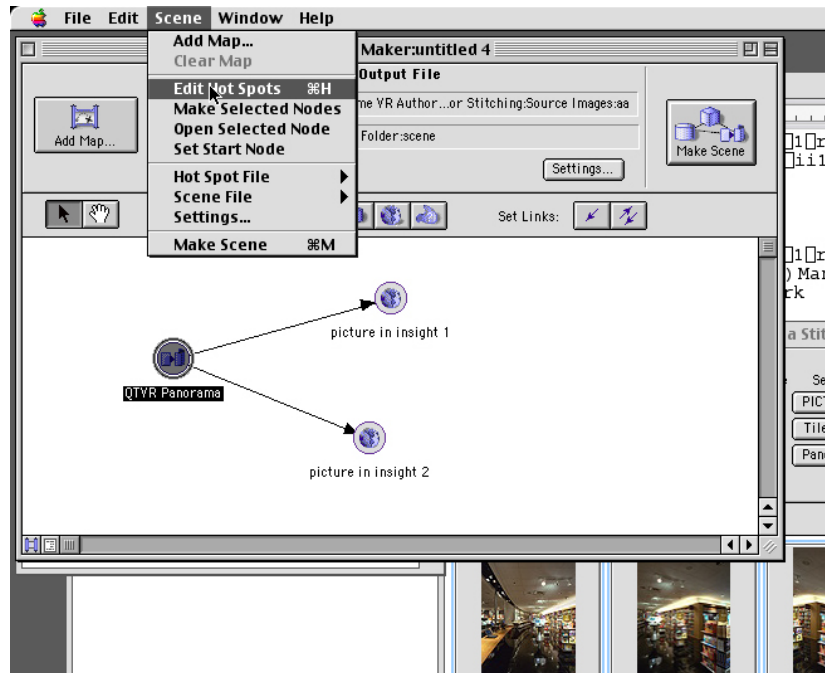
2. In the QTVR Authoring Studio, open the QTVR file that you want to add the image link to.
 - a) Create an URL Node and link to it from the QTVR movie.



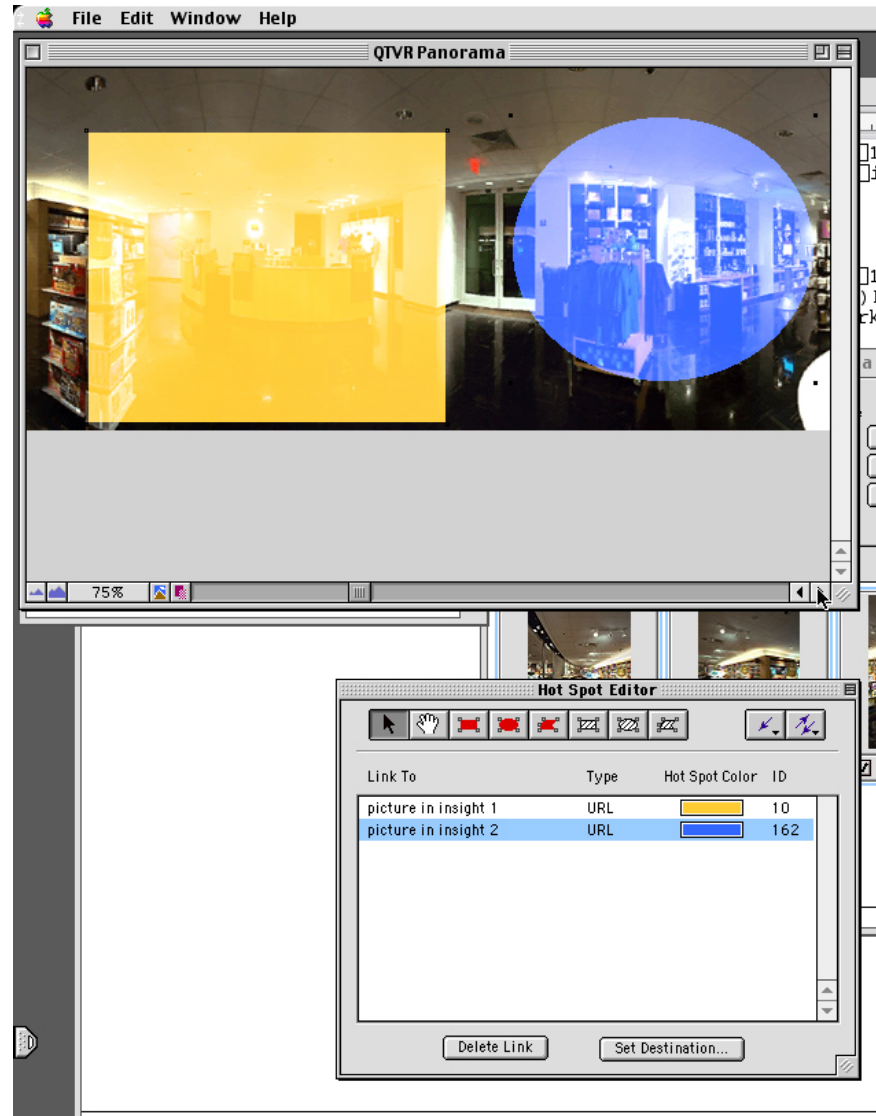
- b) Edit the URL and paste the contents of the clipboard (CTL + V or Command + V, if you are using a Macintosh).



- c) In the Authoring Studio, edit the hot spots for the QTVR movie.



d) Select a link from the *Hotspot Editor*.



- e) Use the tools in the Hot Spot Editor toolbar to create a hot spot by drawing a box on the image where you want the link to be active.
3. Publish the QTVR file.
 4. Process the QTVR file in the Insight Collection Manager. Refer to *Processing QuickTime VR Files* in the next section of this manual.
 5. Test the link by loading the QTVR file in the Image Workspace.

Processing QTVR Files

Processing QuickTime VR (QTVR) files for your Insight collection is similar to processing other media files in Insight Administrator tools. Once your QTVR files and other media (to be processed) are organized, open a new *Media Batch*. In this example, a user will process two tiff images and one QTVR file together.

Note: If you require a thumbnail image to display in Insight and not just the Insight QuickTime icon, you can accomplish this in the following way.

For each .mov file that you are processing place a .jpg of the image you want to display with the same source name in the source directory. (e.g myMovie.mov, myMovie.jpg)

Be sure to review the steps outlined in the Using Media Batches function (refer to *Chapter 4, Section 3, Using Media Batches*) in this manual before you process your QTVR media. For example, you will still need to index the data and create a mapping file as described in the Using Media Batches section.

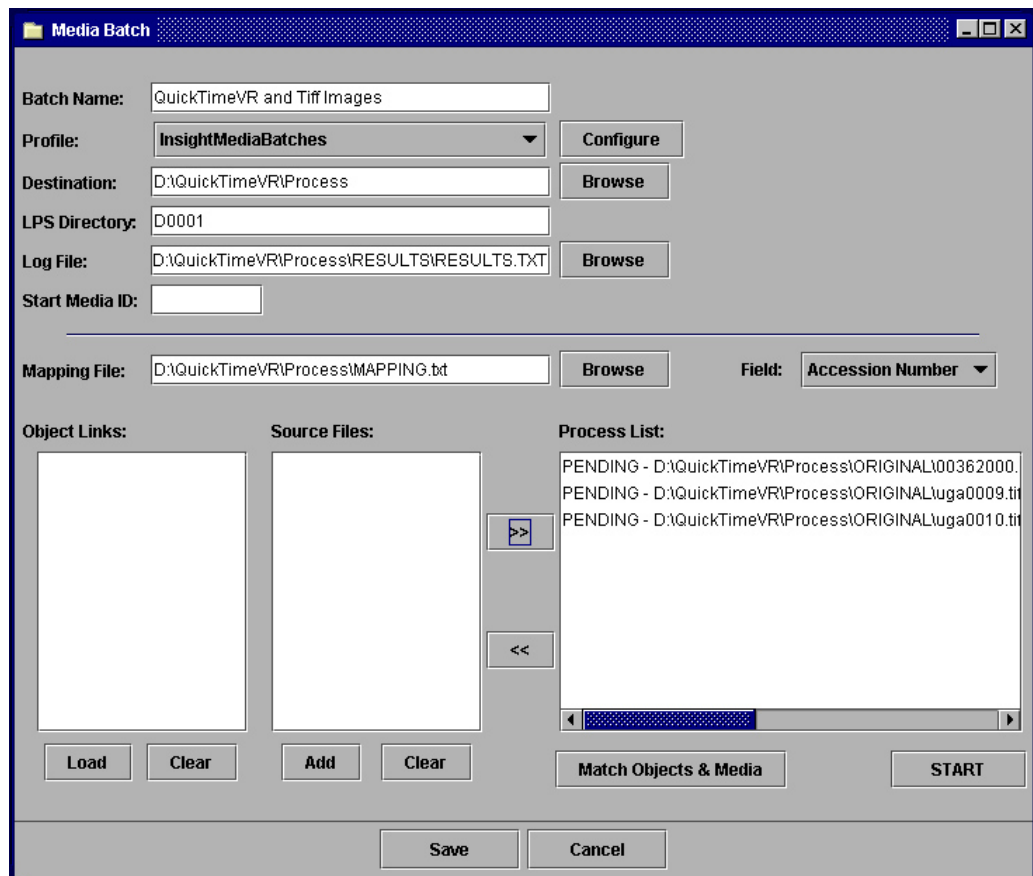


Figure 95 - Processing QTVR Media

In this example, the user is processing one QTVR file named 003620000.mov and two tiff images named 0009.tif and 0010.tif together. There are no special profiles that needs to be set up in order to process QTVR files.

1. Follow all the steps from *Processing a Media Batch (Chapter 4, Section 3* in this manual) until all the media files are processed successfully.

Once your media batch has finished processing, the user can go to the destination where the media was processed. The destination is defined in the Destination field within the Media Batch window. Here are the results for the above example:

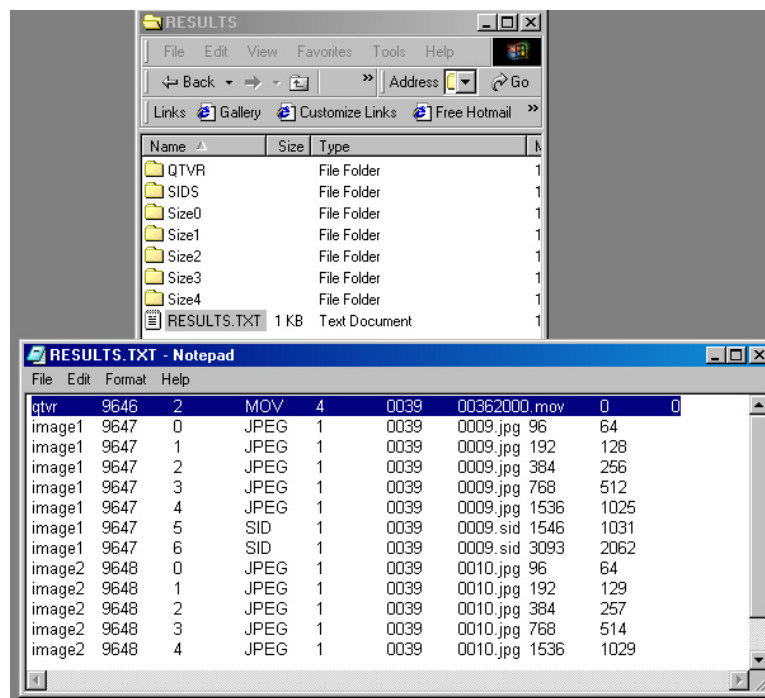


Figure 96 - Processed Media Results

You will notice that a folder named QTVR was automatically created for the processed QTVR file. Also, the other folders (SIDS, Size 0 – Size 4) contain the various sizes of the jpeg images that will be used in Insight.

2. Another important step needed to ensure that the QTVR files are made available in Insight is that **the user must update the SPS Data folder** in the Collection Manager section of the Administrator Tools.

SPS can be used to direct customers to different locations for image retrieval. To add the SPSs for QTVR, refer to *Chapter 4, Section 3, Create New SPS Reference* in this manual.

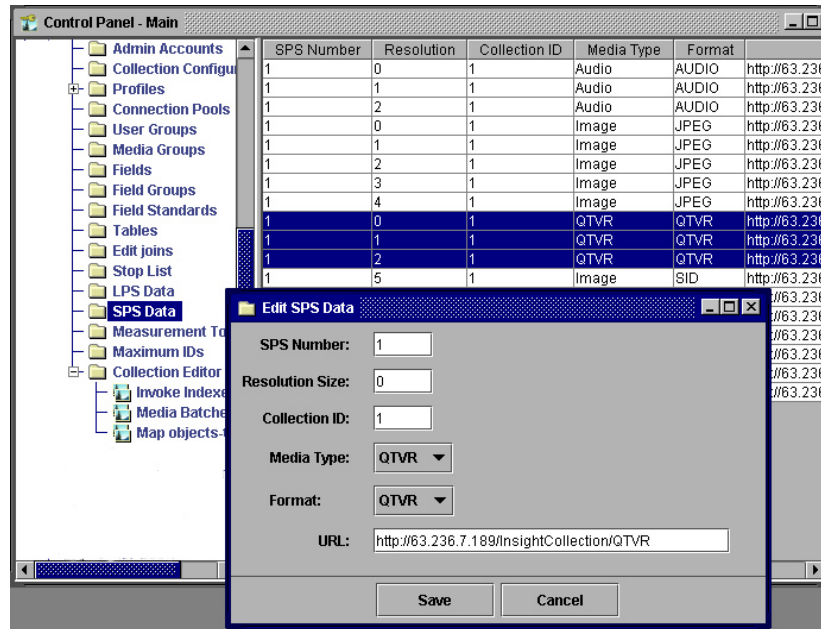


Figure 97 - Adding SPS for QTVR

When adding the SPS, the user must be sure to add three separate SPSs to encompass Resolutions 0, 1, and 2 in order for QTVR files to be available in Insight. The resolutions are defined as follows:

- Zero – Thumbnail images.
- One – Image sized to fit data window.
- Two – First image seen in image workspace.

Also, you must define the URL where the QTVR files will be placed, once they are processed in the Media Batch function. This URL is the location where Insight will search for the defined QTVR file when it is called for in the Insight collection.

3. Once the user has processed the QTVR media in the Media Batch tool and set up the SPS Data for QTVR files, they should continue following the steps from *Running Media Creation Process (Chapter 4, Section 3)* in this manual, starting at step 1, and ending after *Mapping Objects to Media (Chapter 4, Section 3)*. This will include publishing the processed media, mapping objects-to-media, and indexing.

When using the Map-Objects-to-Media function, the processed QTVR file(s) will show up in the Media Records panel (right side) of the console with a .mov extension following the name of the file.

Configuring JPEG Generation

If your original images are .tiff images, using *Image Creation Profile* in Media Batch (in Administrator Tools) will automatically take your .tiff images and convert them to JPEG images. To process original .tiff images that are saved with LZW compression, you will need to select *Edit – JPEG Generation Configuration*, and then choose *Use JAI and ImageMagick* from the Insight Administration Console (Administrator Tools).

Selecting *Use JAI and ImageMagick* in the Insight Administrator Tools will cause your media to process at a slower rate than it would if *Use mbconvert utility* is selected. Mbconvert utility is not compatible with LZW compression. LZW compressed images **will only process correctly** if the *Use JAI and ImageMagick* is selected. If you process LZW images in the Media Batch function of the Administrator Tools, and do not have *Use JAI and ImageMagick* selected, the resulting processed images will not have a value. This means the image size will be zero and you will not be able to view the images.

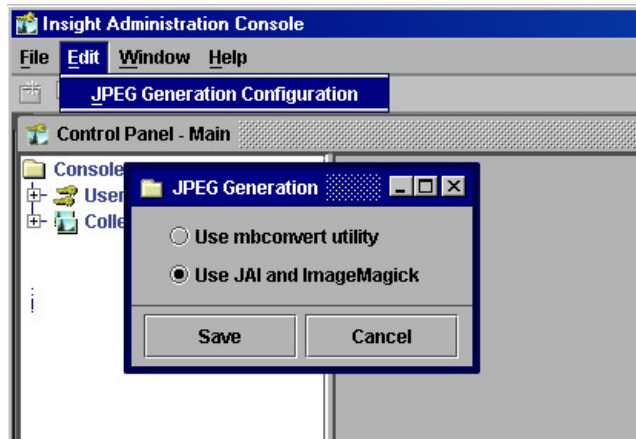


Figure 98 - JPEG Generation

1. You can tell if the original .tiff images are LZW compressed by opening the .tiff image in Photoshop 6, and then selecting *File- Save As*.
2. You will be prompted to give the image a name. Once you name the image select *Save*.
3. You will be prompted to select IBM PC or Macintosh, and if LZW Compression is checked, the image you are saving is an LZW image. You can also uncheck LZW Compression and save the image without being LZW compressed.

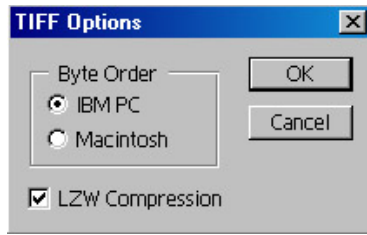


Figure 99 - Tiff Options

MrSid Licensing

MrSid Licensing for Media Batch Tool

Follow the steps below to create a MrSid license for the Media Batch tool:

1. Locate the Compro Locking code. In order to do this, locate the file named *compro.exe*. This will be located in the folder where your admin tools are saved. This usually is in `c:\InsightAdministration`. When you open the file *compro.exe*, you will see the following:

```

C:\Documents and Settings\Administrator\Desktop\compro.exe
Status code: 18
Your license for MrSID Encode is not valid, please check the
following variables:
1. The lserverc file does not exist. If this is the first
time using MrSID Encode, enter the Licence Code below.
To obtain your License Code e-mail register@lizardtech.com.
2. The License Code entered is not valid. Please check the
License Code and enter it again. If this problem persists
e-mail register@lizardtech.com.
3. The LSERVERC environment variable is not set and the
lserverc file can not be found. Locate the lserverc file
and copy it to the current working directory or set
the LSERVERC environment variable.

For technical support e-mail techsupport@lizardtech.com or contact
LizardTech's Technical Support at 1(206)652.5211.

E-mail register@lizardtech.com or call LizardTech at 1(206)652-5211
with the following Locking Code to properly License MrSID Encode.

Locking Code : 4-230

Enter your License: _

```

Figure 100 -Compro.Exe File

Notice the Locking Code listed at the bottom of the window and the blank license field.

2. Copy the Compro Locking Code and send it to register@lizardtech.com. In this example you would tell them you have a Locking Code called 4-230. They will send you your license. (In some cases Luna Imaging will provide you with the License. In this case, you DO NOT need to contact Lizard Tech. Use the code Luna Imaging provided you.)
3. Once you receive your License you will need to open the file named *lserverc*. This file is located in the same folder as the *compro.exe* file. This usually is in `c:\InsightAdministration`. Open *lserverc* in Notepad or another text editor.

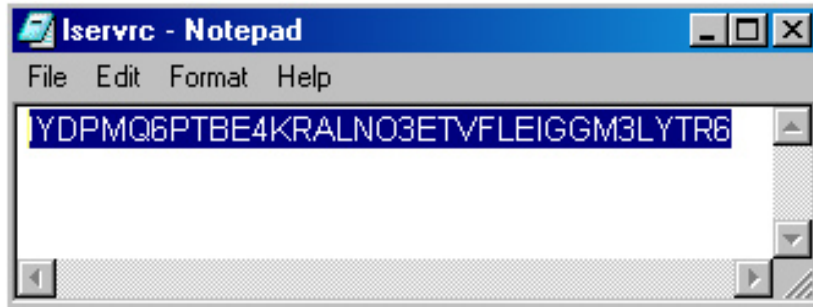


Figure 101 - Iserverc File

4. Paste the License in Iserverc. If there is already data located in this file, REPLACE it with the new information. Save your changes in the file *Iserverc*. Once your data is saved in this file, your license will automatically be entered in *compro.exe*.
5. Verify that you have entered the correct license by double-clicking the file *compro.exe*. If the file opens quickly and then closes, you have successfully licensed your MrSid software and can process Sid images in the Media Batch function in Admin. Tools.

If you see the console stay open (when *compro.exe* is executed), then you have either changed the Locking Code, entered an incorrect license, or were given an incorrect license. If you encounter this, e-mail support@luna-img.com

Transferring MrSid License from One Workstation to Another

Users of the Insight Administrator Tools who process Sid images may want to transfer their Sid license from one workstation to another. In order to do this, you will need to obtain a new license for the MrSid software. Follow the instructions below to transfer a MrSid license from one workstation to another.

1. You will need to copy the Insight Administration folder from the first workstation and paste it into the directory for the second workstation. The Insight Administration folder is the folder that was created when the Administrator Tools were installed on the initial workstation. This folder will most likely be located in C:\Program Files\InsightAdministration.
2. Once you have pasted the Insight Administration folder into the directory of the new workstation, locate the file called *compro.exe*. This should be inside the Insight Administration folder.
3. Click the *compro.exe* file. Notice the Locking Code, which is 4-230 in this example. You should see the following message:

```

C:\Documents and Settings\Administrator\Desktop\compro.exe
Status code: 18
Your license for MrSID Encode is not valid, please check the
following variables:

1. The lservrc file does not exist. If this is the first
   time using MrSID Encode, enter the Licence Code below.
   To obtain your License Code e-mail register@lizardtech.com.
2. The License Code entered is not valid. Please check the
   License Code and enter it again. If this problem persists
   e-mail register@lizardtech.com.
3. The LSERURC environment variable is not set and the
   lservrc file can not be found. Locate the lservrc file
   and copy it to the current working directory or set
   the LSERURC environment variable.

For technical support e-mail techsupport@lizardtech.com or contact
LizardTech's Technical Support at 1(206)652.5211.

E-mail register@lizardtech.com or call LizardTech at 1(206)652-5211
with the following Locking Code to properly License MrSID Encode.

Locking Code : 4-230

Enter your License: _

```

4. Send this Locking Code and your name to Luna Imaging Technical Support via e-mail to support@luna-img.com. Luna Imaging will then obtain the proper license that goes with your locking code from Lizard Tech (who is the creator of MrSid). Luna Imaging will send the license back to you.

Note: The license will be unique for each workstation. You will **not** be able to use the license from the old workstation (which created Sid images for the new workstation).

5. Once you receive the new license from Luna Imaging, you will need to open the file named *lservrc*. This file is located in the same folder as the *compro.exe* file. It is usually found in `c:\InsightAdministration`.
6. Open *lservrc* in Notepad or another text editor. Paste the license in *lservrc*. If there is already data located in this file, REPLACE it with the new information. Save your changes.
7. .Once you save your changes in the file *lservrc*, your license will be entered in *compro.exe*. Then, you will be able to create Sid images in this instance of the Insight Administrator Tools.

Verify that you have entered the correct license by double-clicking on the file *compro.exe*. If the file opens quickly and then closes, you have successfully licensed your MrSid software. Then, you can process Sid images using the Media Batch function in Administrator Tools. If you encounter any problems, e-mail support@luna-img.com.

Section 4: Managing Collections

Creating Virtual Collections

A virtual collection is created from a subset of one or many media groups containing one or many Collection Managers. These subsets can then be identified as a virtual collection. This virtual collection can have its own look and feel and the user will see this as a separate collection when logging in.

Note: All virtual collections **must contain the same browser attribute settings as the main collection** except for the Collection Name and VCDID or your virtual collection will not work properly.

To make a virtual collection, follow the steps below:

1. Create a media group with the content you want in your virtual collection.
 - a. Create the media group in Admin Tools or within the Insight client.
 - b. Make the group a Collection Group using the media group in the Admin Tools.
2. Add a new Collection Configuration.
 - c. Use the same Institution ID and Collection ID as the main collection.
 - d. Select the media group that you created in Step 1) for opening the initial group.
 - e. Enter a VCID that will identify this virtual collection.
 - f. Change the visual attributes (point to a new background & set the color).
3. Go back to your media group in the Administrator Tools and change the properties.
 - g. Choose the appropriate virtual collection parent group.
4. Make a new User Group (Login Group) in the Collection Manager and choose the profile created in Step 2).
5. Add this virtual collection to the User Manager.
 - h. Add a new collection.
 1. Fill in the collection name, collection ID, institution ID, address (ignore for virtual collections), and port (ignore for virtual collections).
 2. Check virtual and enter the Virtual Collection ID.
 3. Select which collections have portions of this virtual collection.
 - i. To allow access, add this virtual collection to the user groups.
 - j. Create a new group with the same settings as in Step 4).
 - k. Make a new profile.
 - l. Add profile to users.
6. Update thumbnail cache in Insight Indexer.
 - a. Navigate to the Collection Editor folder and either double-click on the folder or click on the "+" to display the other folders.
 - b. Right click on *Invoke Indexer* and select Run directly. This will launch the Indexer Setup window where the indexing options will be presented. The indexing options will vary depending on which stage you are in the collection building process.
 - c. Select or check *Update Thumbnail Cache*. You also need to provide the IP and Port addresses to have the indexer automatically update the

thumbnail cache for the Insight collection server. During start-up, the Insight server stores the default thumbnail image and data query results in memory. If this option is selected, the next time you open the collection, the newly added images and data will be present.

Public Versus Private Collections Hosting Solutions

NOTE: This documentation is for the Version 3.0 ASP Insight Browser Server and not the Version 4.1 JSP Insight Browser.

The following instructions show you (a user of Insight browser) how to control access to a main browser collection by restricting the IP address while creating a virtual collection that is open to anyone with limited and controllable functions.

When you have completed setting this up, a user who is within the restricted IP addresses will be able to access the original browser collection. When a user is outside the restricted IP addresses, if they access the URL, instead of getting the message “403.6 error forbidden,” they will be directed to the unrestricted content in the form of a virtual collection.

Note: In order to create a browser virtual collection (for Insight browser), you must have running: both a functioning Insight browser collection and a browser virtual collection.

A virtual collection is created from a subset of one or many media groups, containing one or many Collection Managers. These subsets can then be identified as a virtual collection. This virtual collection can have its own look and feel. The user will see this as a separate collection when they are logging on.

To make a virtual collection, follow the steps below:

1. Create a media group with the content you want in your virtual collection.
2. Create the media group in Admin Tools or within the Insight client.
3. Make the group a Collection Group using the Media Group in Admin. Tools.
4. Add a new Collection Configuration.
 - a. Use the same Institution ID and a different Collection ID as your main collection.
 - b. Select the media group that you created in Step 1) to open the initial group.
 - c. Change the browser attributes (point to a new background).
5. Once your virtual collection is created, edit the **connectstring.inc** file. It is located in the *browser.asp* folder.

You will need to make four modifications to your connectstring.inc. Make a backup copy of this file before you make your changes. Collection id, in the next four steps, refers to the Insight browser instance number in the **connectstring.inc file**.

Change 1: Find the last instance of “elseif collectionid=...”

elseif collectionid=3 then

cs="LUNA/Insight/sp=false/user=insight/password=insight/sql70=true"

Change this to the next available collectionid. In this example, the user changed the collectionid=3 to collectionid=4
 elseif collectionid=4 then
 cs="LUNA/Insight/sp=false/user=insight/password=insight/sql70=true"
 (This is not the actual string you will use. Your string will contain information pertaining to your individual collection).

Change 2: Find the line that looks similar to this:

```
elseif collectionid=3 then
    pid=1
```

You will change the pid= to the Profile ID found in Profiles in the Collection Manager for your browser collection.

```
elseif collectionid=3 then
    pid=2
```

In this example, the pid=2 is in the Admin Tool, so this is changed to 2.

Change 3: Find the line that looks similar to this:

```
*****CollectionAbbreviation
    elseif collectionid=3 then
        cid=1
```

In this example, the user will change the cid=1 to reflect the number listed in Collection Configuration in the Collection Manager for your browser collection.

```
*****CollectionAbbreviation
    elseif collectionid=3 then
        cid=2
```

In this example, the cid=2 is in the Admin Tool, so this is changed to 2.

Change 4: Find the line that looks similar to this:

```
*****CollectionAbbreviation
    elseif collectionid=3 then
        iid= "DALTON" (Dalton is just an example of a collection name.
Your collection name will vary).
```

6. Now, Save your changes to the connectstring.inc file.
7. Launch the browser with the new information you added to the connectstring.inc. This will include the new cid= and ig= (the ig is the name of the group which you created in the original, restricted browser that contains the images for the virtual collection).

Here are examples of two strings. The first will allow a user inside the IP restrictions to access the entire collection.

<http://insight.lunaimaging.com/browser/start.asp?cid=3&iia=0&isl=1&ig=Dalton%20Collection> (This string is just an example. Your string will look different.)

A user will be directed to the following string when they are outside of the IP restricted range. Note the cid=4 in this next example, and cid=3 in the above example, and that the collection names are different pertaining to the different collections.

<http://insight.lunaimaging.com/browser/start.asp?cid=4&iia=0&isl=1&ig=Dalton%20Public%20Images>

The diagram below explains how the entire process works.

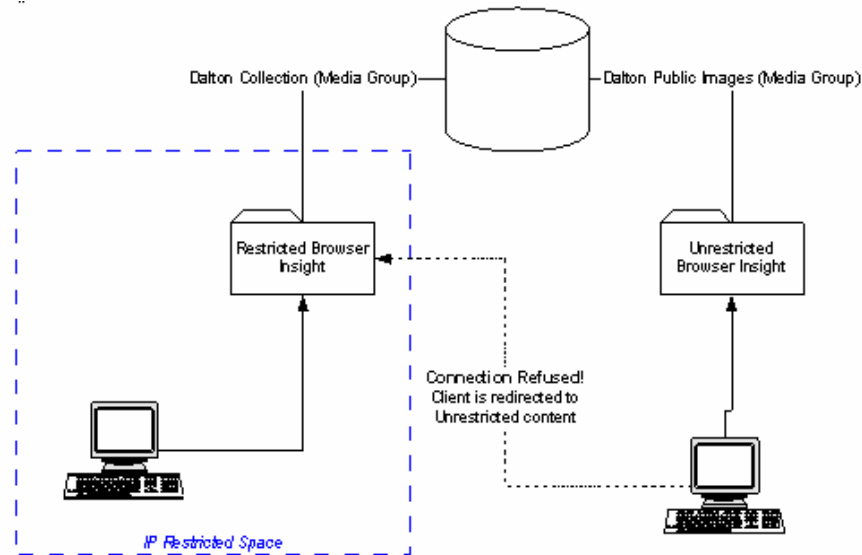


Figure 102 - Public Vs. Private Collections Hosting

8. Once you have two browser collections running, copy the browser collection that will be within the IP restrictions by copying the entire folder named Browser. This copied folder is the collection that will NOT be accessible if you are on a machine outside the set IP restrictions. Make sure you copy all the files from this browser collection by copying the entire folder named Browser. Give the new, copied folder a name such as BrowserRestricted.
9. Create a Virtual Directory in IIS for the new folder (BrowserRestricted) you created in Step 6). Start restrictions based on this second (BrowserRestricted) folder. The restrictions you set up are up to you. But some examples are restricted groups or main menu items such as not having the Group Menu Available.

This is an example of what the Browser Menu will look like without the Group Menu.

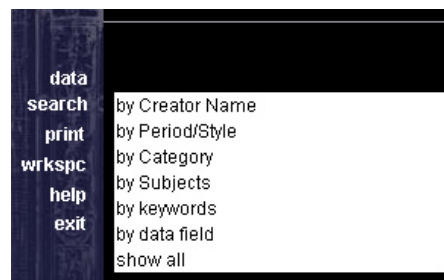
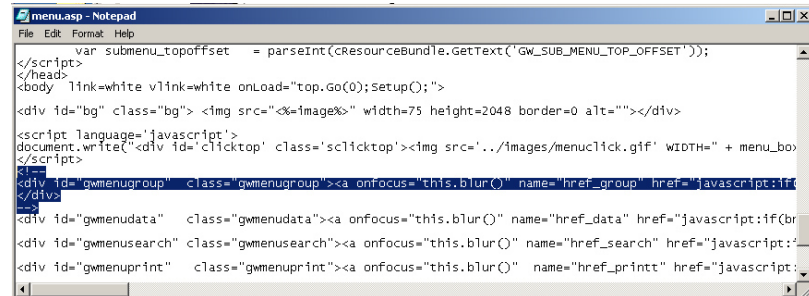


Figure 103 - Browser Menu without Group Menu

10. In order NOT to have the Group browser function show up in your restricted browser, edit the *menu.asp* file which is located in the *Inf* folder. You will want to open **menu.asp** in a text editor such as *Notepad*.

You will need to comment out the data pertaining to the Group Menu option in the browser function. To comment out the data pertaining to the Group Menu option place `<!--` before the data as shown below and `-->` after the data.

The following graphic illustrates what the comment looks like. Find the data that begins with `...<div id="gwmenugroup" class="gwmenugroup"><a onfocus=...`



```

var submenu_topoffset = parseInt(CResourceBundle.GetText('GW_SUB_MENU_TOP_OFFSET'));
</script>
</head>
<body link=white vlink=white onload="top.Go(0);Setup();">
<div id="bg" class="bg"> </div>
<script language="javascript">
document.write("<div id='clicktop' class='clicktop'><img src='../images/menue11ck.gif' WIDTH=" + menu_bo
</script>
<!--
<div id="gwmenugroup" class="gwmenugroup"><a onfocus="this.blur()" name="href_group" href="javascript:if(
</div>
<div id="gwmenudata" class="gwmenudata"><a onfocus="this.blur()" name="href_data" href="javascript:if(br
<div id="gwmensearch" class="gwmensearch"><a onfocus="this.blur()" name="href_search" href="javascript:if
<div id="gwmenuprint" class="gwmenuprint"><a onfocus="this.blur()" name="href_print" href="javascript:if

```

Many users would want to restrict access to Group because the only group they want to be made available is the initial group that is opened and no other.

11. To set up IP restrictions to the main, regulated collection, go to the browser folder for the main collection. This is the original folder that you copied to create the BrowserRestricted folder.
- Open IIS- go to the Browser folder- and then *start.asp*.
 - Go to properties on *start.asp* and select *file security*.
 - Then go to IP address and domain name restrictions. Deny access to certain IP addresses or accept access for certain IP addresses. You can also add restricted or accepted IP's for a group of computers. Once the IP restrictions are set up, click OK and save the changes.
12. If in Step 11) you restricted access to the main (IP restricted) browser collection, when this collection is accessed from an IP outside of the ones you set in Step 9), you will see a 403.6 error message. This means that since you are outside the set IP ranges, you do not have access to the Insight browser collection. The next step is to send the user to the virtual browser collection (This is the second browser collection you created. It is referred to in the initial Note prior to Step 1.) instead of receiving the 403.6 error message (when they access the browser URL when outside the accepted IP address ranges).
13. Now, you will need to create a blank HTML page and name it *redirector.html*. This page is used later in this step.
- To restrict access to the main, IP restricted, browser collection, you will need to find the file called *start.asp* that is in the IIS browser. This is in the Browser folder, not the copied Browser2 folder.
 - When you find this file, go to *Properties*, select *custom errors*, highlight *403.6*.
 - Edit its properties: For the *Message Type* field, type *URL*.
 - For the *URL* field, type subpath */browser/redirector.html*. *Redirector.html* is the blank HTML page you created.

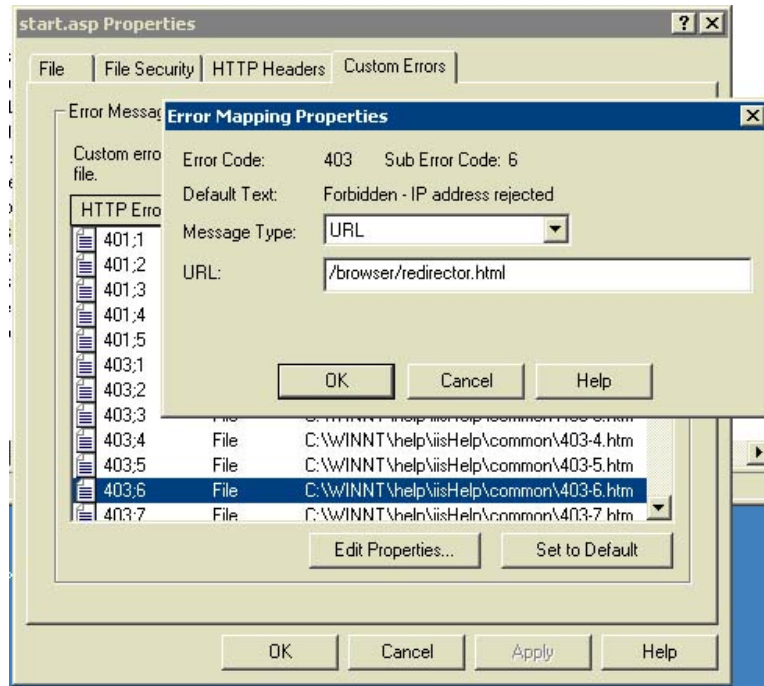


Figure 104 - Error Mapping Properties

Go to *redirector.html* and select *Properties*. Select the radial button: *A redirection to a URL*. Paste the launch string to your virtual collection in the field *Redirect to =*.

14. You are now done. When a user is inside the IP restrictions, they will be able to access the original browser collection. When a user is outside the IP restrictions, when they access the URL, instead of getting the message *403.6 error forbidden*, they will be directed to the virtual browser collection.

Add a Collection to an Existing User Manager and Provide Access to Existing Users

In order to add a collection to an existing User Manager and provide access to existing users, refer to this section in Chapter 3, *Managing Users*, page 29.

Add a User Group to a Collection

To add a User Group to a collection, refer to Chapter 4, *Creating and Managing Collections*, page 68.

Statistical Usage Reports

Expanded use-reporting and logging features are as follows:

- **User Authentication Logging** – User session authentication is logged to daily CSV (Comma-Delimited Text) files. The “LogFilename” property of the InsightUserServer.dat configuration file determines the first part of the CSV filename, which is suffixed by a date string of the form “-YYYYMMDD” and a “.txt” file extension. These files will appear in the Insight Collection Server directory.

The data logged for each authentication appears on a single line, and includes the following fields, separated by commas: Date, External IP, Internal IP, Username, Status, Collection Count.

- **Search Logging** – Searches are logged to daily CSV files. The “SearchQueryLogFilename” property of the server configuration file determines the first part of the CSV filename, which is suffixed by a date string of the form “-YYYYMMDD” and a “.txt” file extension. Not specifying a log filename will disable the search query logger. These files will appear in the Insight Collection Server directory.

The data logged for each search appears on a single line, and includes the following fields, separated by commas: Date, Collection Name, External IP, Internal IP, Username, User Group, Institution ID, Collection ID, Virtual Collection ID, Profile ID, Search Group ID, Result Count, Search Type, Keyword Value, Media Fetch Type, Field ID, Field Name, Relation, Value, Boolean Operator 1, Boolean Field ID 1, Boolean Field Name 1, Boolean Relation 1, Boolean Value 1, Boolean Operator 2, Boolean Field ID 2, Boolean Field Name 2, Boolean Relation 2, Boolean Value 2.

- **Image Export Logging** – Exports are logged to daily CSV files. The “ExportLogFilename” property of the server configuration file determines the first part of the CSV filename, which is suffixed by a date string of the form “-YYYYMMDD” and a “.txt” file extension. Not specifying a log filename will disable the export logger. These files will appear in the Insight Collection Server directory.

The data logged for each export appears on a single line, and includes the following fields, separated by commas: Date, Collection Name, External IP, Internal IP, Username, User Group, Institution ID, Collection ID, Virtual Collection ID, Profile ID, Exported Image ID, Exported Image Resolution, Exported Image URL.

Insight Log Analysis Tool

The insight log analysis tool is intended to provide general statistics on use of the Luna Insight Software. It is intended to provide information to collection managers and system administrators on who accesses that collection, what they search for, how many results are found, what images they look at, and what images they download for a given collection.

Installation:

Files Included:

Logs/ -- contains sample logs
Sample_Output/ -- contains sample output
Perl/ -- contains the analyzer script and all required files
Sample_commands/ -- contains sample commands for running daily, weekly, monthly, and annual log reports

Where to install the log analyzer:

In general it will probably make sense to install the log analyzer on the same machine that your collection manager is installed. Note, log analysis is a processor intensive application and should be scheduled at off-peak times.

When choosing where to install and run the log analyzer, be aware that it requires access to the following log files:

- *the collection's web server logs* (to determine which images were viewed)
- *the collection's access, query, and export logs* (to determine who logged in, searches run, and images exported) These are generally located in the same folder as your collection server
- *the browser's access and query logs* (to determine who logged in and searches run) These are generally located in the JSP Browser's logs folder.

Installation:

- 1) Replace the new JVA and the JSP Browser jar & JSP files with the ones packaged. (for Insight 3.5 users only).

Note: the following changes to the BrowserInsight.conf are necessary to enable logging support:

- a. The following lines need to be added to the file:

```
SessionLogFile = Browser-Insight-Session-Log.txt  
SessionLogMode = 1
```

- b. The Search Query log should just be the filename (not including the full path to the file) eg:

```
SearchQueryLogFile = Browser-Insight-Query-Log.txt
```

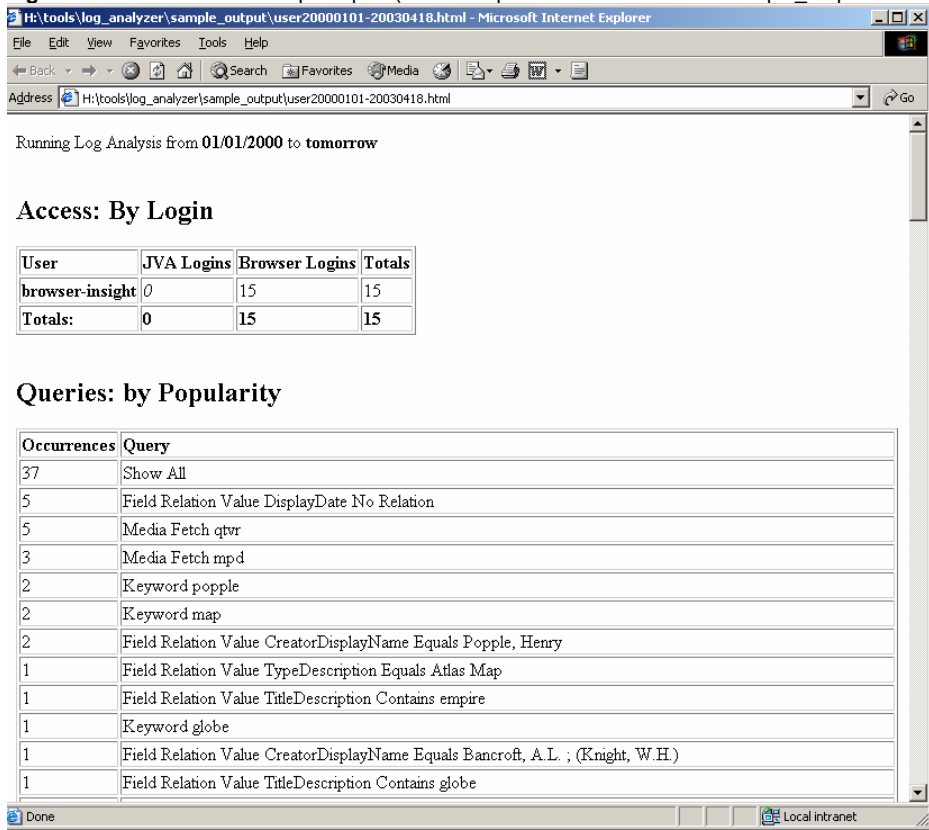
- 2) Install perl 5.6.1 or higher on your machine (if it is not already installed).
- 3) Unzip and copy the log analyzer files on to your server
- 4) Install the following perl modules. You can download the latest versions of these modules off of CPAN (<http://search.cpan.org>). If you are on windows and are using the Active State distribution of perl, you can load the Perl Package Manager (PPM) by typing PPM in a dos prompt and then typing install <Module Name>. The required modules include:
 - a. Time::ParseDate
 - b. Archive::Zip
 - c. Net::IP
 - d. CGI (generally included with all perl distributions)
- 5) Edit first line of the analyzer.pl file (in the perl folder) to point to the perl executable

```
#!c:\perl\bin\perl.exe --> #!/path/to/executable
```

Sample output:

Sample log data and sample log files are included in the installation package in the logs directory and sample_output directory. Finally, sample invocations of the log analyzer for common reports are stored in the sample_commands folder. See Figure 1 for a screenshot of a sample report.

Figure 1: Screenshot of a sample report (other samples are available in the sample_output folder)



Configuration and Use:

Valid Log Files:

As some changes were necessary to make log files parse-able, only log files created from a v3.50.4+ server will be properly parsed. As changes to the client are necessary to record the individual username in the access log, this type of logging will require a 4.0+ client.

Apache, IIS, and Media Security Server Log files:

IIS Log Files:

For IIS log files to be processed, they must have the following values in the W3C format. Date, Time, Client IP, Method, URI Stem, URI Query, Status

Apache Log Files:

For Apache log files to be processed, they must be in either common or combined format.

Media Security Server Log Files:

These will work in their current format.

Required Log files:

The following log files are needed to properly produce a report:

- IIS (W3C format *see above*) or APACHE (common) Web server log
- Insight JVA Access log
- Insight JVA Query Log
- Insight JVA Export Log
- Insight Browser Access Log (Optional). Note: as the browser can support multiple collections one log file is created per collection and has the appropriate Collection ID appended to the beginning of the file (in order to easily determine which is the correct log file)
- Insight Browser Query Log (Optional) Note: as the browser can support multiple collections one log file is created per collection and has the appropriate Collection ID appended to the beginning of the file (in order to easily determine which is the correct log file)

invocation:

```
perl analyzer.pl usertype=inst process=all headerfile=headerfile.html ...
```

passing parameters to analyzer.pl:

command line properties can be passed to analyzer.pl either via the command line or via a properties file specified on the command line. The properties file is a simple way to pass the same set of properties over multiple invocations (good for IP mapping).

Note on log directories:

The log directories passed to the log analyzer must contain the JVA and Browser log files for ONE COLLECTION ONLY, with the exception of the web server log. This is to ensure that log data from multiple collections are not combined.

Usertypes:

Insight supports two different concepts of a users: Individual users and Institutional users. Individual users are defined by usernames in the user manager while institutional users are defined by a group name (the one paired with a code-key). The log analyzer by default will assume that it should treat users as institutional users, however this can be overridden by the usertype parameter.

Note: recording access of individual users by username requires a 4.0+ client.

Figure 2: Configuration parameters for the Log Analyzer

Parameter	Example	Repeat?	definition	Required
logdir	logdir=c:\logs	Y	Specifies one or many log directories where logfiles may be found for processing	Y E S
fromdate	fromdate=01/01/2000 or fromdate=last year or fromdate=last month or fromdate=last week or fromdate=yesterday	N	Specifies the first valid day for a log entry	Y E S
todate	todate=01/01/2000 or todate=last year or todate=last month or todate=last week or todate=today or todate=tomorrow	N	Specifies the last valid day for a log entry	Y E S
outdir	outdir=c:\inetpub\...	N	Specifies the output directory for reports	Y E S
cid	cid=1	N	Specifies the collection id for the collection to report on	Y E S
iid	iid=LUNA	N	Specifies the institution id	Y E S
vcid	vcid=NA	N	Specifies the virtual collection id (NA if this is not a virtual collection)	Y E S
propsfile	propsfile=analyzer.dat	N	Specifies the filename of the properties file (see figure 3 for an example)	N O
usertype	usertype=Institution or usertype=User	N	Specifies whether users are grouped by their groupname or by their username	NO
process	process=all or process=username	N	Specifies the user(s) to process. All specifies process all user, specifying a user limits processing to just that user	NO
headerfile	headerfile=header.html	N	Prepends the headerfile to the beginning of the log report (good for adding an image or title)	NO
footerfile	footerfile=footer.html	N	Appends the footerfile to the end of the log report	NO
fileprefix	fileprefix=luna	N	Specifies the prefix for a filename, i.e. if rumsey is specified, a filename might be rumsey2001-2004.html	NO
logsuffix	logsuffix=log	Y	Specifies one or many allowable suffixes for a logfile (so the script will not try and parse invalid file types). Note: zip files are a valid format	NO
overrideWebRegex	overrideWebRegex=/luna/client=luna	N	Allows an administrator to filter down the HTTP log further using a Regular Expression, in example, URL contains /luna/ or client=luna	NO
mingroupfilter	mingroupfilter=10	N	Specifies the minimum number of times a group is accessed before it is displayed in the group access log	NO
minresultfilter	minresultfilter=10	N	Specifies the minimum number of results for a search before that search is displayed in the search results log	NO
minpopfilter	minpopfilter=10	N	Specifies the minimum number of times a search is performed before it is displayed in the popularity log	NO
minaccessfilter	minaccessfilter=10	N	Specifies the minimum times a user must login before they are displayed in the access log	NO
minexportinstfilter	minexportinstfilter=10	N	Specifies the minimum number of times an institution exports images before it is displayed in the export log	NO

minexportfilefilter	minexportfilefilter=10	N	Specifies the minimum number of times an image is exported before it is displayed in the export log	NO
minwebinstfilter	minwebinstfilter=10	N	Specifies the minimum number of times an institution accesses images before it is displayed in the image access log	NO
minwebfilefilter	minwebfilefilter=10	N	Specifies the minimum number of times an image is accessed before it is displayed in the image access log	NO
map	map=131.229.219.0-131.229.219.255: TEST	Y	Specifies an IP address or range of IP addresses to map to a given user or group. Valid IPs include: A range: 20.34.101.207 - 201.3.9.99 An IP: 193.0.1.46	NO

Figure 3: Sample properties file:

```
# note lines starting with a # are comments
logdir=H:\tools\log_analyzer\logs\
#logdir=C:/inetpub/wwwroot/log_analyzer/logs/
logsuffix=log.txt
logsuffix=zip
map=131.229.219.0-131.229.219.255: TEST
```