6.3

Luna Imaging Inc.

Insight® + LUNA

LUNA 6.3

A Guide to LUNA

6.3 Revision

LUNA

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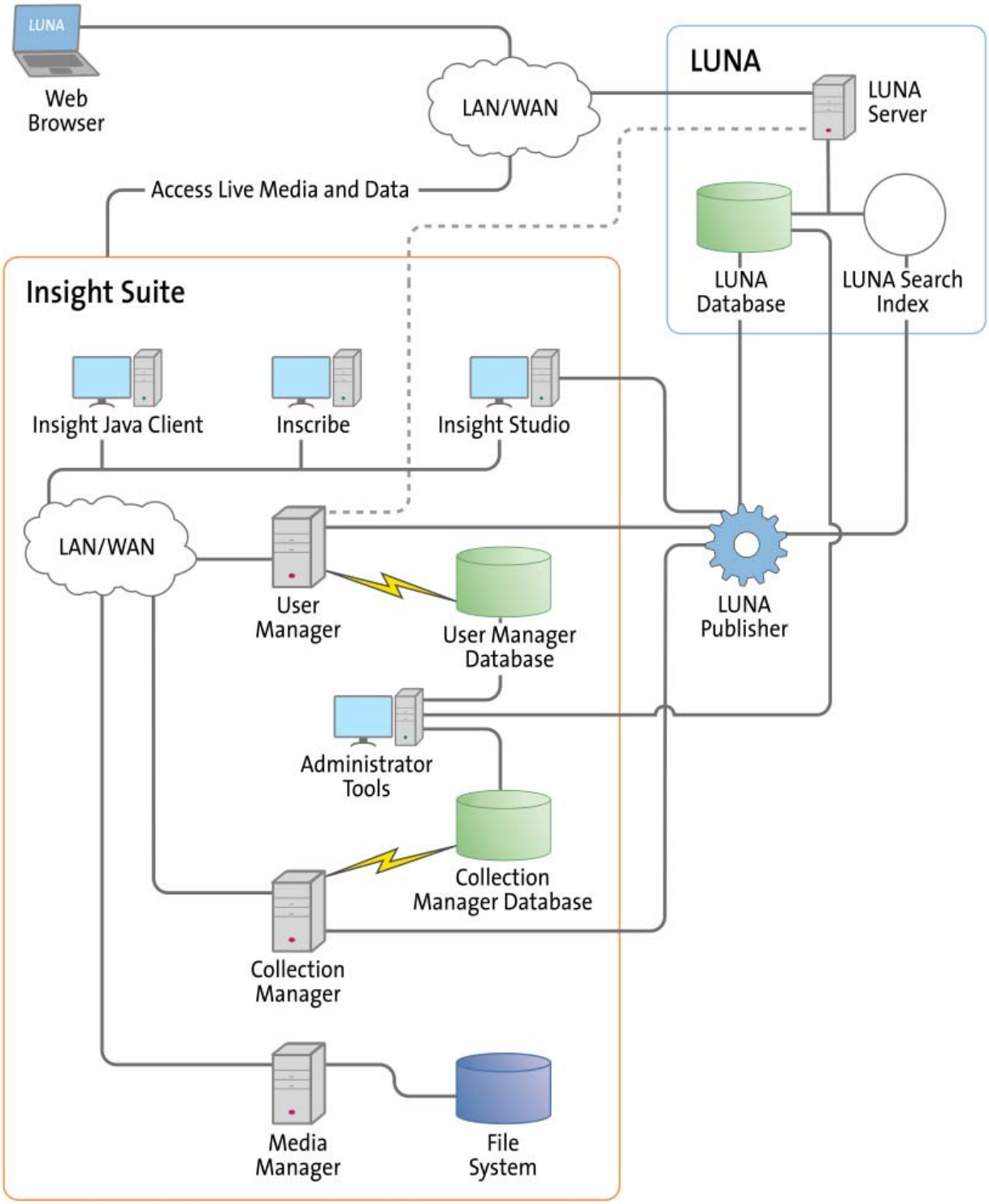
Welcome to LUNA

This document is intended mainly for system administrators and secondarily for LUNA administrators to provide context and information on how to Install & Configure LUNA. Readers are expected to have a basic knowledge of the UNIX / Windows Operating Systems, Microsoft SQL Server / Oracle Databases / MySQL, and Apache Tomcat and JBoss Application Server.

Figure 1: Insight and LUNA Component Diagram



LUNA Components are as follows:

LUNA Publisher: Schedules and is used to pull data out of the Insight Collection Manager, storing it in an XML format. The LUNA Publisher then converts the archive data into a Lucene index for each collection and merges all Collection indexes into one single search index. Once merged, the LUNA Server is placed into a maintenance mode and the newly merged index replaces the existing one.

LUNA: LUNA is the dynamic web based front end to Insight collections. With LUNA, users can perform simple keyword searches as well as more complex structured queries, and control how they view, browse, and organize their results to create groups and presentations. LUNA includes the Web 2.0 tools your users are demanding which enable them to save and share their work by linking and embedding any view, image, group, or presentation.

LUNA Server: The LUNA Server is the server side component behind the LUNA client. Collections published to LUNA are indexed on the LUNA Server. The LUNA Publisher will automatically update the indexes based upon a schedule that you define.

Insight's Components are as follows:

User Manager: The User Manager functions as a single point of entry for all Insight Collections and Personal Insight Managers. It consolidates the functions of authentication and authorization for all shared resources within Insight and for LUNA. The User Manager can integrate with an existing security infrastructure if an institution already has a single sign-on solution in place. The User Manager also provides access to resources such as shared folders and groups within Insight. LUNA enables end-user management of viewing preferences, and storage folders for media groups and presentations.

Collection Manager: The Insight Collection Manager provides a common interface between client requests and the underlying data repository. Each Collection Manager may contain multiple collections and Virtual Collections of consistent or heterogeneous structures. The Collection Manager also functions as a broker between the clients (the Insight Java Client, Inscribe data editor, Studio (LUNA Publisher and XML Gateway) and the underlying database, coordinating search requests, and data updates.

Personal Insight Manager: The Personal Insight Manager is a specialized version of the Collection Manager which supports the creation of Personal Collections with the Insight Java Client.

Media Manager: The Insight Media Manager is built around a servlet, and manages access to Insight's media content. The Media Manager supports direct upload of processed content and also manages access to the JPEG2000 wavelet images that power Insight's Image Workspace.

Java Client: The Insight Java Client provides an additional interface for searching, viewing, and managing images, audio, video, and other media. The Java Client also provides end-user collection building tools with Personal Insight and the ability to create Virtual Collections – a subset of content with different access levels.

Inscribe®: The optional Inscribe data editor is an end-user cataloging tool designed to support all of an institution's cataloging needs. The Inscribe data editor includes built-in support for controlled vocabularies, date and numeric validation, and complex data relationships. Inscribe also supports an institution's workflow requirements by facilitating the publishing and review processes.

Studio: Studio provides collection administrators with the tools to build and manage collections. Studio is a wizard-based tool supporting batch processing of media, batch import of metadata, user management, catalog template creation and management, and other basic functions. The LUNA Publisher is accessible from within the Studio client.

Administrator Tools: The Insight Administrator Tools allow a collection administrator to dynamically manage collections. Components of the Insight Administrator Tools include tools for batch media processing, user and resource management, data indexing, and configuring of the search and user interface.

JPEG2000 Wavelet Encoder: The Administrator Tools and Studio include a JPEG2000 Wavelet Encoder. Wavelet encoded images improve performance when accessing large images, reduce storage requirements, and optimize network usage on image delivery.

Insight XML Gateway: The XML Gateway provides a web-services based interface for searching and retrieving content stored within Insight collections. The XML Gateway is middleware which allows backend interaction between Insight and other XML aware applications.

What's New in Insight 6.3

Select Features of **LUNA**

- **BookReader Integration**:
  Browse Books in LUNA: The BookReader integrates the discovery and display of compound objects such as books, manuscripts, and newspapers in LUNA. In addition to descriptive data, BookReader objects are indexed for full text searching.

  Quickly Build Collections: Add Open Library titles to your LUNA collections to quickly build the robust resources your users need. Open Library is a project of the non-profit Internet Archive. With over 1 million titles it contains a wide range of fiction, popular books, children's books, historical texts and academic books.

  Build BookReader Objects: Now you can build your own BookReader objects including OCR of printed text, which will be searchable in LUNA.

  Expanded view options for BookReader: View a BookReader object in the Detail View, as a page of thumbnails, or in the Full View. The Full View provides a larger display of the book object and incorporates a vertical thumbnail panel to quickly scroll through individual book pages.

  Use individual pages from books like any other image in LUNA to create presentations, add to media group, etc…

- **Full Text Search**:
  LUNA now indexes the full text from BookReader and PDF media. Users will be able to select whether they search catalog data or both catalog data and the text in documents.

- **OAI-PMH and RSS**:
  LUNA collections can now be exposed to OAI-PMH harvesters such as OAIster which feeds WorldCat.org. RSS feeds provide additional flexibility for delivering targeted content to users and keep audiences up to date on the latest changes to your collections.

- **Enhanced Data Panel Search**:
  End users can now click on fielded terms within the data display window to search for a particular value within a single field across multiple fields.

- The technical metadata that displays at the bottom of the data display panel can now be configured by the Insight administrator so that it does not display.

- LUNA has been enhanced to support Inscribe data formatting, such as line breaks in the data display panel, making it easier to read large blocks of text.

- An Advanced Search can be executed by hitting the enter key.

- We added a page footer to LUNA which can be modified through an HTML file. This area can be used to inform your users any way you choose.

- With shortened URLs there are new options for sharing content with standard tools like Facebook, Twitter, Google, Delicious, etc…

- An enhancement to the Administrator Tools makes it possible to load graphics for non-image file types.

- Improvements made to LDAP testing and credential granting which provides a way for administrators to determine which credential is being granted.

- Modified the “similar to” operator from “#” to “|”. Please note that this enhancement may result in the loss of previously embedded or saved searches.

What's New in Insight 6.2.2

Select Features of **LUNA**

- **“Buy” Link**. Designed for Pictopia printing services but developed in a generic way that may be used for other print on demand services. See A Guide to LUNA (link to page in the doc) for details on how to set up “Buy” Link in LUNA.

- **Enhanced Image Export**. Ability to select from multiple image resolutions when exporting images from the Detail View in LUNA. Setting the maximum image export resolution is controlled in Credential Settings

- **Improved Featured Media Display**. Administrators can create a Featured Media group for “All Collections” in order to have select images display in the Featured Media window when a user selects “All Collections”. If a Featured Media group has not been created for “All Collections”, or for individual collections, LUNA will randomly select the images for display in the Featured Media window each time a user selects a collection. For this option, LUNA will randomly select a page from Browse All, then randomly pick 8 thumbnails from the page as the Featured Media.

- **Improved Embed This**. Web widgets now retain the black background of the LUNA Workspace when embedded.

- **Authentication workflow enhancement**. LUNA can be set up to send a copy of the welcome note that is emailed upon registration back to the LUNA Admin so that they can assign appropriate access credentials.

What’s new in Insight v6.2.1

Select Features of **LUNA**

- **Annotations** can be added to images from the Detail View or the Workspace and made public or private. Annotations are versatile and can be text based as well as able to support HTML code and embeddable widgets- like Google Maps or YouTube content. All users have the ability to create private annotations or Media Group shared annotations. Insight Administrators determine which users have credentials to create collection level annotations for public view (see Credential Settings in Guide to LUNA to grant access).

  For those with existing annotations in Insight, annotations saved at the collection level in Insight will now display in LUNA.

- **My Uploads** allows users to upload image and various other file types from their desktop directly into LUNA. Content added to My Uploads will remain private or can be shared by adding to a public Media Group or by creating a link to the image from the LUNA Workspace or Detail View. Insight Administrators determine which users

have credentials to access My Uploads as well as the types of files users can upload. Supported file types include Jpeg, Tiff, PDF, bmp, gif, png. Flv, Audio and Video files (see Credentials in a Guide to LUNA to grant access).

Note: My Uploads may add load to the server. The Media Manager and Processor for My Uploads can be installed on a separate machine.

- Support for searching data containing diacritics (requires re-Publishing).
- Facets/Categories are cached to improve start-up times for LUNA.
- Ability to upload the custom graphic header in the LUNA Publisher.
- Support for Tomcat
    - Added in addition to Jboss to ease configuration and minimize conflicts. You may continue to use Jboss or switch to tomcat.

What's new in Insight v6.2

Select Features of **LUNA**

The LUNA Publisher: Sharing and Receiving collections from LUNA Commons.org

- Retrieve LUNA Commons collections for local LUNA display.
- Prepare LUNA Collections to publish to the LUNA Commons.

User Features

Media Groups

- Ability to quickly check the content of your Active Media Group via the new Active Media Group Panel while browsing and working with content.
- Ability to instantly change the Active Media Group using an easily accessible pull down menu.
- PowerPoint export of a Media Group with associated image data.
- Original filename is preserved when exporting images.

Navigation

- Larger icons throughout for working with media, Media Groups, and Presentations.
- Forward and Back buttons on all pages.
- Improved sorting of a single collection by available data fields.
- Improved Category Browsing.

Discovery

- New intuitive Advanced Search.
- Addition of wildcard searching.
- Ability to perform a keyword search in the Media Panel of the LUNA Workspace.

Presentations

- Improved Presentation creation with faster loading of Media Panel, faster loading of slides
- Improved speed of loading presentation in playback back mode.

- Improved image quality, and image metadata included when exporting. Presentations to PowerPoint.

Security

- Https displays on login page when login SSL is enabled.

Administrative Features

Administrator Tools

- Process for removing collections from LUNA using Admin Tools and LUNA Publisher.
- View and change ownership of Media Groups and Presentations using Admin Tools.

Backend

- Enhanced LUNA collection authorization to be consistent with Insight authorization when using LDAP.
- Enhanced LUNA collection authorization to be consistent with Insight authorization when using LDAP.

Installing LUNA

Introduction

LUNA is an additive component to Insight. You will need to have a working Insight installation and collection(s) to make full use of LUNA.

LUNA can be installed into any of the supported Insight configurations with the exception of Oracle 8. Add the necessary database and ensure you have a minimum of 512MB of free memory, or the recommended 1500MB of free memory, on your server.

There are two major components to LUNA, the LUNA Publisher and LUNA. Each item requires a database. Follow the same guidelines described in the Insight installation to prepare these databases. Both databases will only store user generated information and will not store contents of the collections. This means the storage requirements for these databases are fairly small. 100MB should be plenty of space.

Create two databases. One for LUNA and one for the LUNA Publisher

Running the Installer

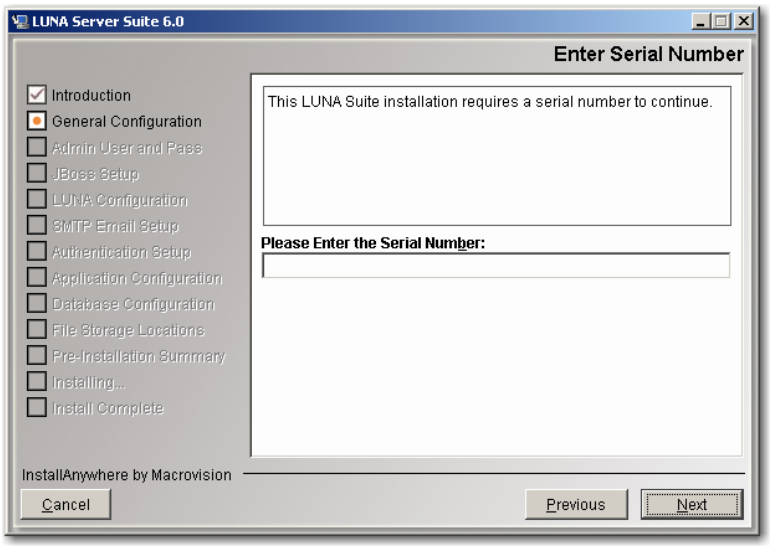
The LUNA installer, like the Insight installer, requires a GUI. If you are installing on Linux or Solaris, you will need X Windows to run the installer or other GUI interface.

Start the LUNA installer on your system and follow the prompts described in the following section.

Serial Number

The install requires a Serial Number to continue the installation process.

As a licensed institution, you should have been issued one. If not, contact our support department to obtain a valid licensed Serial Number.lunasupport@lunaimaging.com



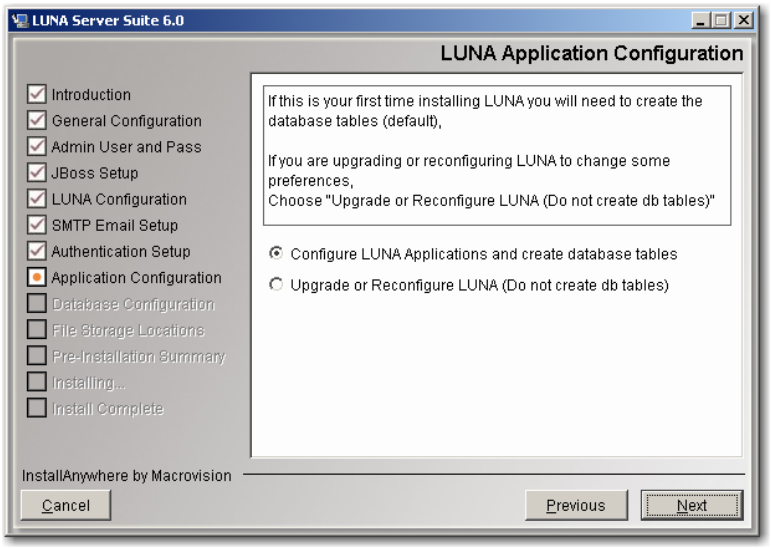
LUNA Application Configuration

If this is the first time you install LUNA, then you must choose the first option “Configure LUNA Applications and create database tables”.

If this is a subsequent installation and you just want to **upgrade** or reconfigure the LUNA application without deleting any user generated information, then choose “Upgrade or Reconfigure LUNA (Do not create db tables)”.

NOTE: If you are upgrading, Stop Jboss before running the installer

LUNA and the LUNA Publisher are deployed using Java WAR files. This option will just configure the WAR file and deploy it.



For Upgrade or Reconfigure Only

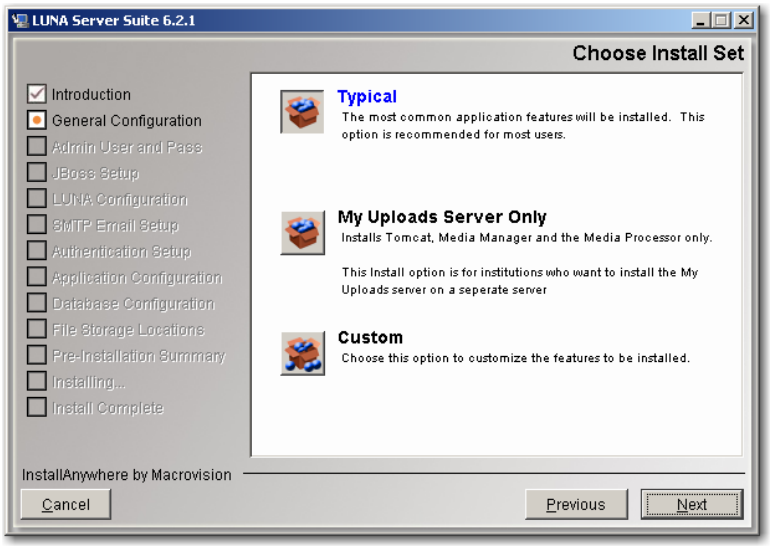
Choosing install sets for upgrade

If you have modified your jboss version for any reason, you may need to apply those changes again once the install is complete.

Choose Install Set

For the Initial installation, you will generally choose Typical. This will include all system components.

- LUNA
- LUNA Publisher
- JBoss
- Tomcat (New in 6.2.1)
- Media Manager & Media Processor
- Administrator Tools



My Uploads Server Only

As of version 6.2.1+, LUNA supports uploading of end user's images and content. This feature requires a Media Manager and the Media Processor components.

Since these components place image processing on the server, you may want to separate this activity to another machine depending on the level of use expected.

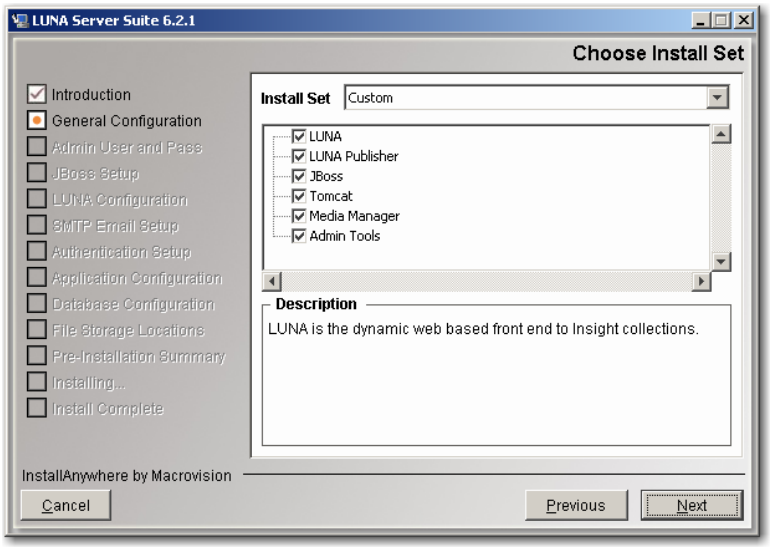
If you choose to install the My Uploads Server independently, then you should install this component first. During the install of the LUNA component, you will be asked the server name and port of your My Uploads server.

This will install a Media Manager, Media Processor and Tomcat.

Custom Install

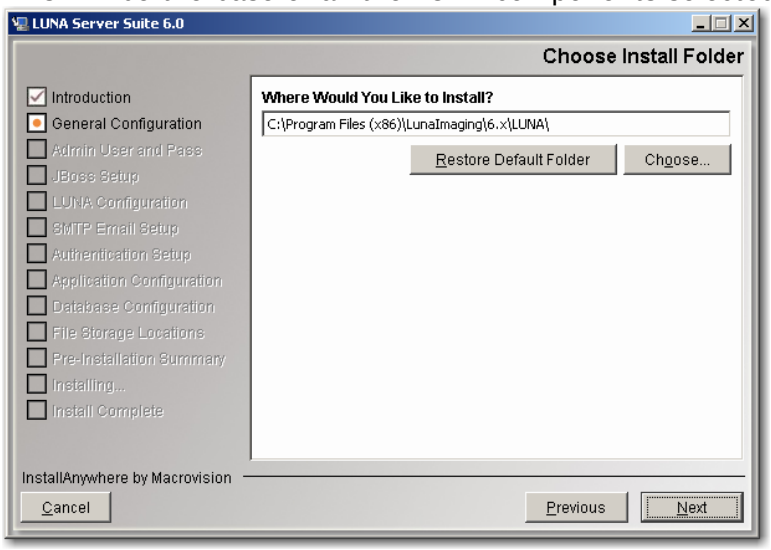
For subsequent installations, you may wish to choose to install a specific component. You can choose to install any of the following system components.

- LUNA
- LUNA Publisher
- JBoss
- Tomcat (New in 6.2.1)
- Media Manager & Media Processor
- Administrator Tools

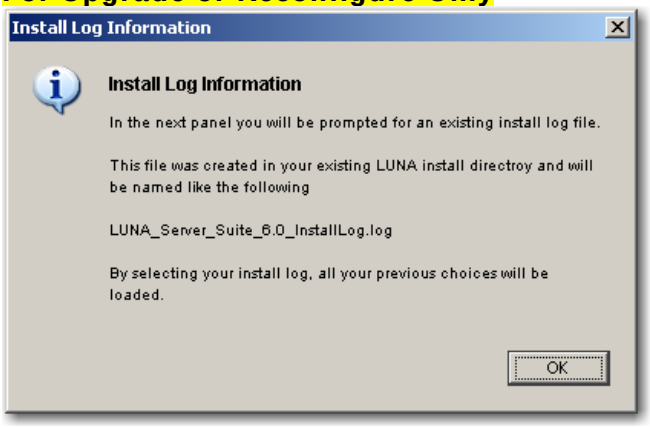


Install Location

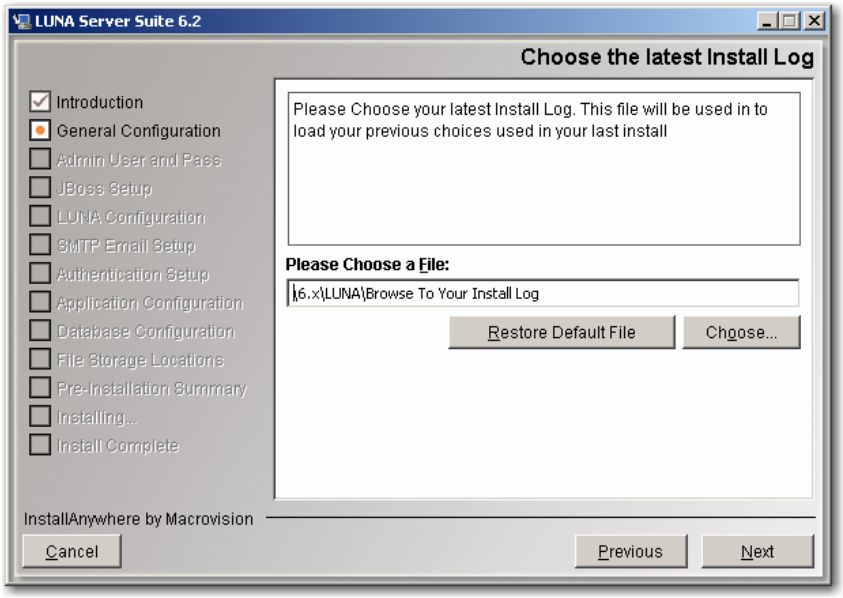
This will be the base of all the LUNA components selected.



For Upgrade or Reconfigure Only

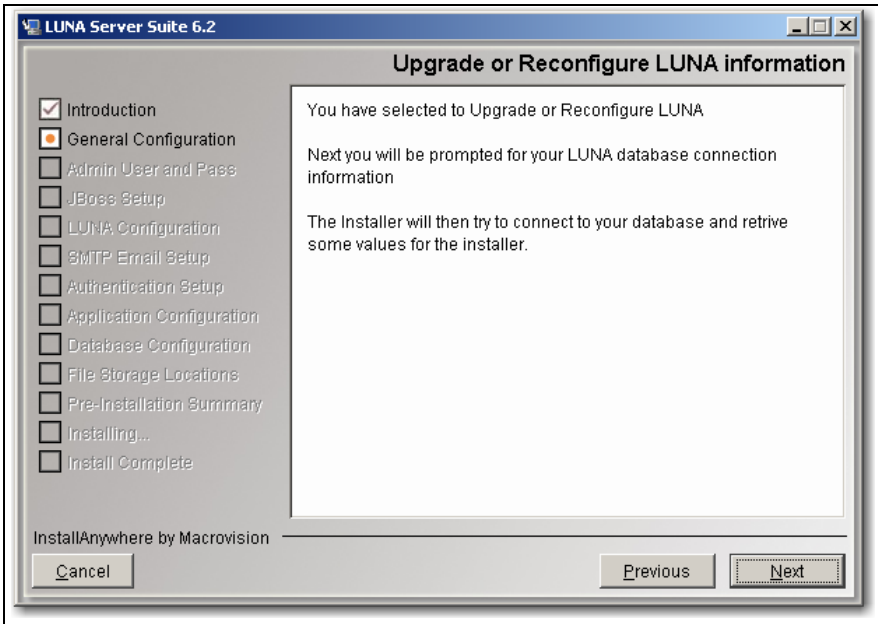


Since you are upgrading, your previous install log can be used to provide the installer with the same choices that you made the last time you installed.

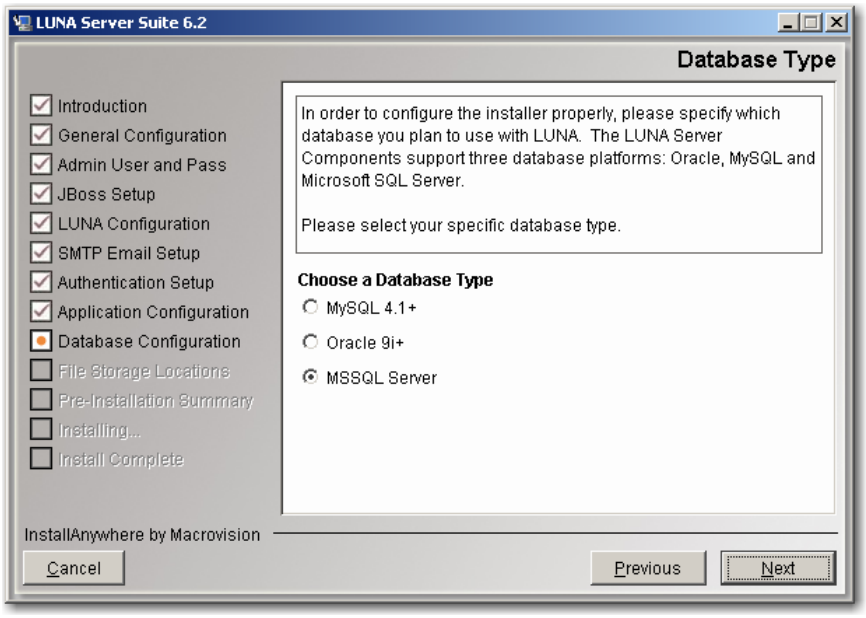


Choose your Install log. This should be located in the root directory of where you installed LUNA. The name should be something like LUNA_Server_Suite_6.0_installLog.log.

For Upgrade or Reconfigure Only



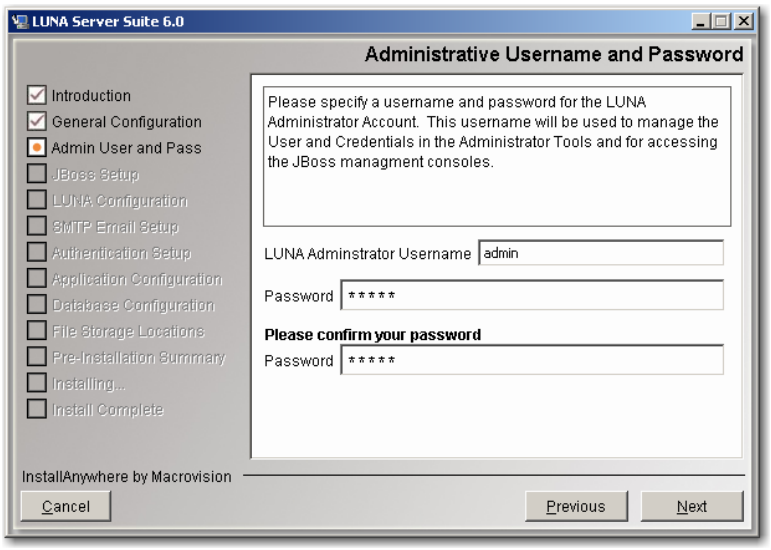
Since you are upgrading, you will now be asked how to connect to your database. Once connected, the installer will read some of your Application Configuration table to assist you in the rest of the upgrade. See Choosing a Database Type for more information on making choices for this section.



Specifying an Administrative Username and Password for LUNA

LUNA requires you to specify an administrative username and password. This username and password will be used for authentication within the Administrator Tools and for accessing the JBoss management consoles. Users with this username and password have access to tools that can manage LUNA collection access and Credentials and modify LUNA's configuration, so be careful who it is shared with.

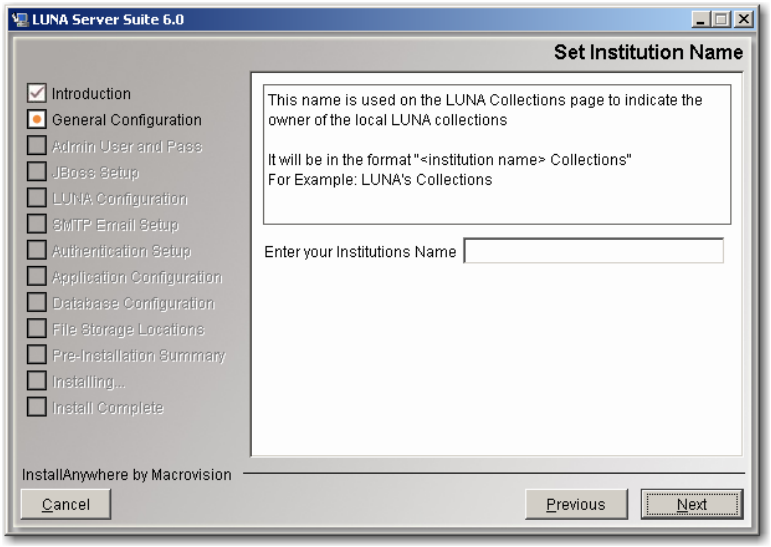
NOTE: This password is not encrypted. Do not use your network or system administrator password.



Institution Name

This name is used on the LUNA Collections page to indicate the owner of the local LUNA Collections.

The format is:
<institution name> Collections

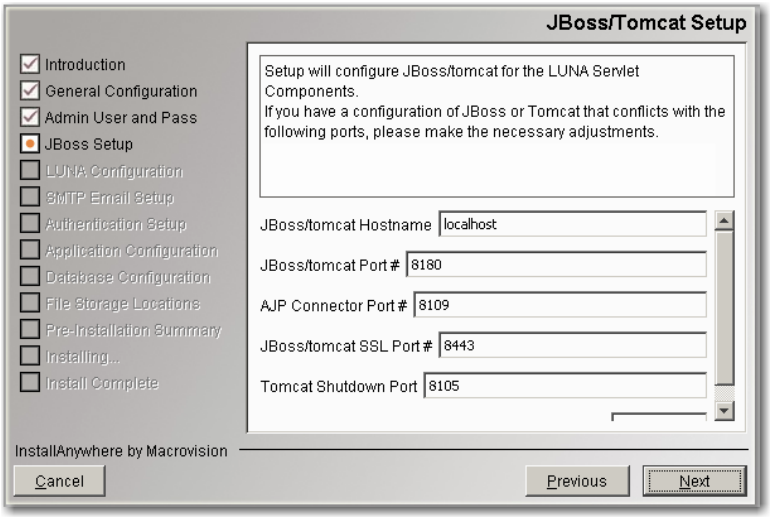


In the example below, it is set to **Luna**.

JBoss and Tomcat Setup

The LUNA application and LUNA Publisher are served via JBoss or Tomcat. The installation will take care of all major configurations with JBoss and Tomcat but you may choose to select different ports for the application to run on.

Note: You are also choosing how much memory to allocate to the application. Make sure this much memory is freely available or the server will have out of memory errors.



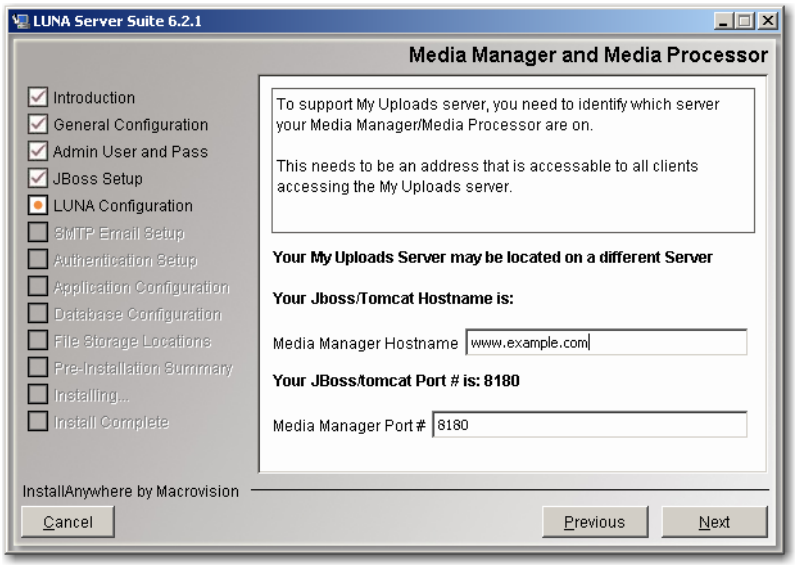
My Uploads Media Manager and Media Processor

My Uploads allows users to upload image and various other file types from their desktop directly into LUNA.

This address must be available to all end users who will be accessing this feature.

Important! This is not your Insight Media Manager

Typically this will be the same address and port as your LUNA and LUNA Publisher but it can be installed on a different server.



LUNA Configuration

This section allows you to choose how the LUNA application is generally configured.

Insight User Manager Address

LUNA can use your existing Insight User Manager to grant access to your collection resources. You do not need to create the accounts. As a user is logged in, the username is passed to the LUNA system (not including the password) and the user is granted access to the same collections that they had access to in Insight.

Header Graphic Hyperlink

You have the option to make a link in the Header Graphic go to a specific http address. By default the address will return to the LUNA collections Page (/luna/servlet).

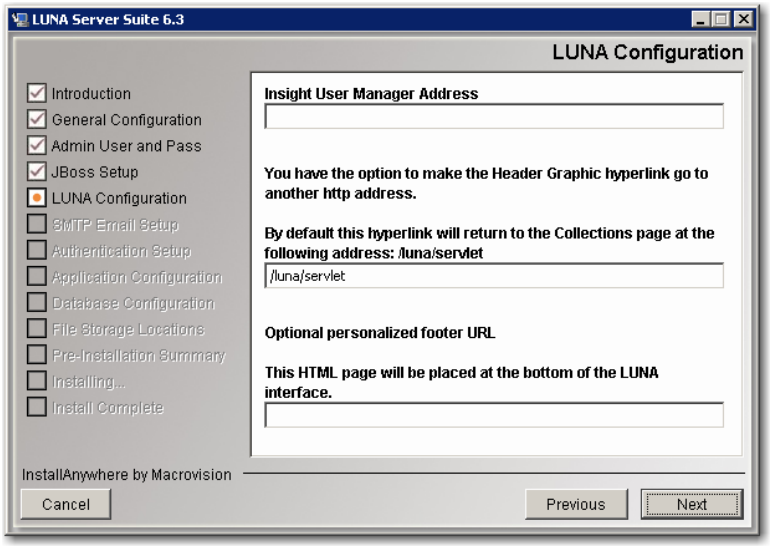
This feature is useful if you want to create a launch page for the LUNA application and from LUNA the user can return to the launch page.

Personalized Footer

You have the option to add a personalized Footer in LUNA. This footer will be placed at the bottom of all LUNA pages.

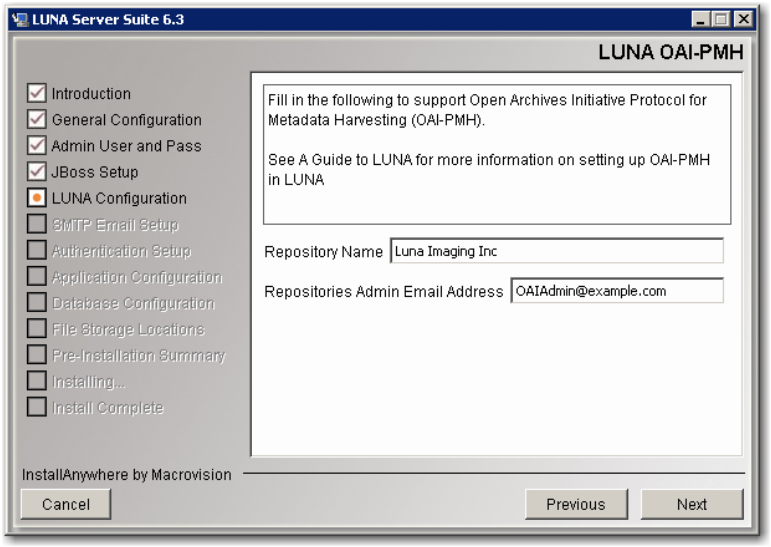
Just create a simple web page with a black background and place it on a web server.

Click here to see a Luna Footer Example



OAI-PMH Setup

If you would like to share some of your collections with OAI-PMH then enter a repository name and an Admin Email account. If not leave these fields blank.



Enable Google ads

If you would like to place ads on the content of your site to generate potential revenue to support your collections, just check the ads box. The ads will be placed on the right side of the application. Go to http://www.google.com/intl/en/ads/ to sign up for an AdSense account. You will be prompted later in the installation to provide additional information specific to your AdSense account.

Enable End User Registration

LUNA has built in end user self management. If you would like your end users to manage their own accounts (allowing them to create Media Groups, presentations and search External Media), select this item. Later in the configuration you will be asked for your email server information for outgoing messages.

Access LUNA Commons Collections

Selecting this option indicates you want to receive free collections from the LUNA Commons. You will be required to provide additional information later in the installation process.

Share Select Collections with the LUNA Commons

Selecting this option indicates you want to share some of your collections with the LUNA community. You will be required to provide additional information later in the installation process.

Enable SSL for Login

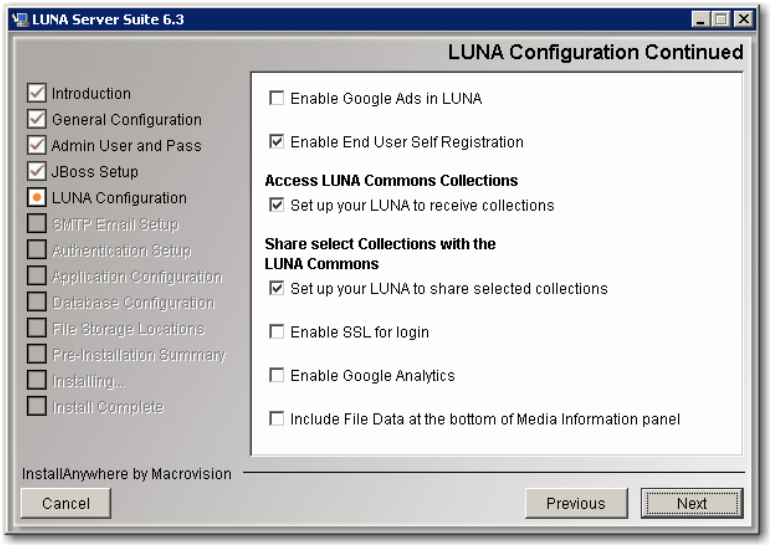
To prepare your system to support SSL during login, select this item. You will also need to install a certificate to implement the SSL login capabilities.

Enable Google Analytics

Prepare your system to support Google Analytics. You will also need to have a Google Analytics account to make use of this option. See http://www.google.com/analytics

Include File Data at the bottom of the Media Information panel

This option allows you to disable the File Data contained at the bottom of the Media Information Panel. To show this information check the box, uncheck to hide it.

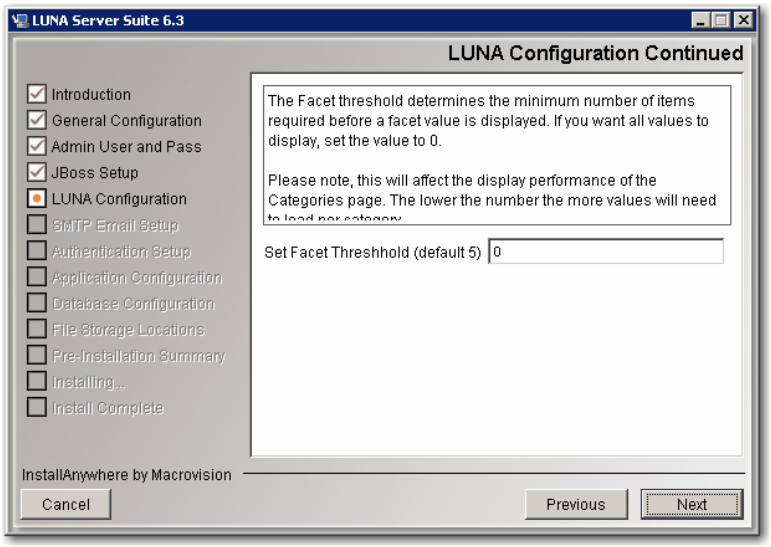


Facet Threshold

The Facet threshold determines the minimum number of items required before a facet value is displayed. If you want all values to display, set the value to 0.

Please note, this will affect the display performance of the Categories page. The lower the number the more values will need to load per category.

The default for this setting is 5



Access LUNA Commons Collections

See what is in the LUNA Commons, http://www.lunacommons.org/

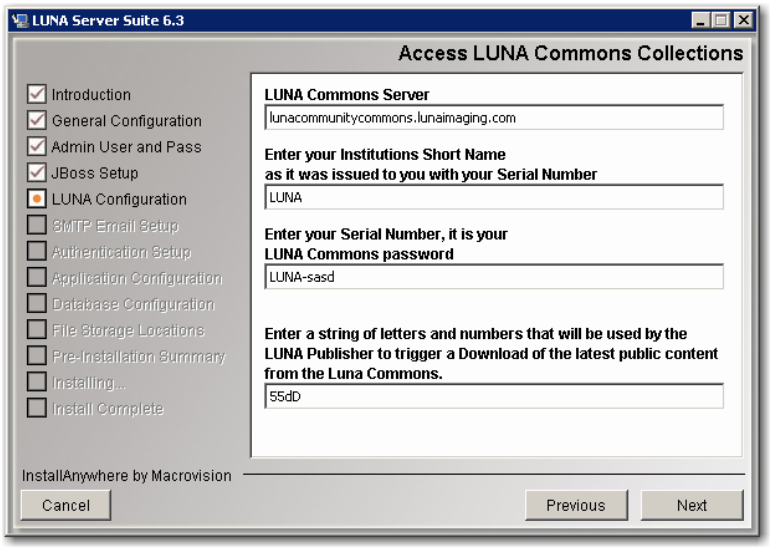
LUNA Commons Server Address

To access the LUNA Commons, you may need to enter the appropriate Community Commons server address (the default will work unless told otherwise).

Enter your Institution's Short Name and your Serial Number

When you were issued your Serial Number, you were also issued a Short Name for your institution. This Short Name and your Serial Number are your keys to access the LUNA Commons collections.

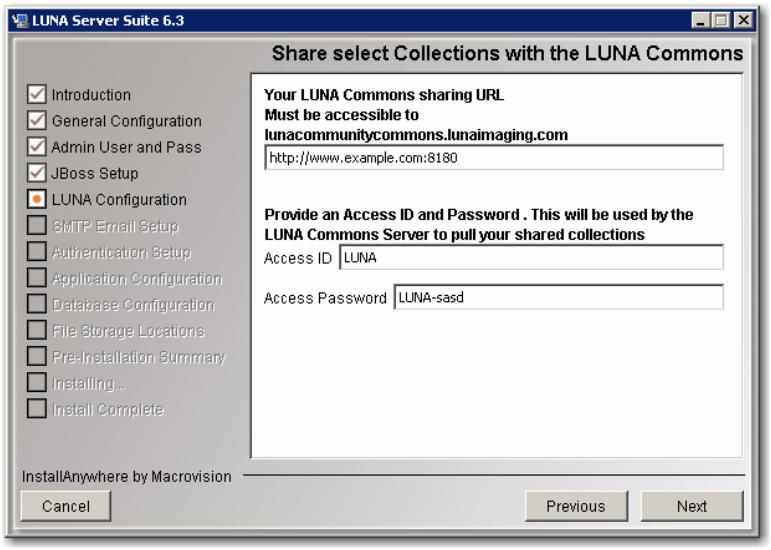
Enter a string of letters and numbers with no spaces or special characters. This string will be used in the LUNA Publisher to trigger a download of the LUNA Commons content.



Share Select Collections with the LUNA Commons

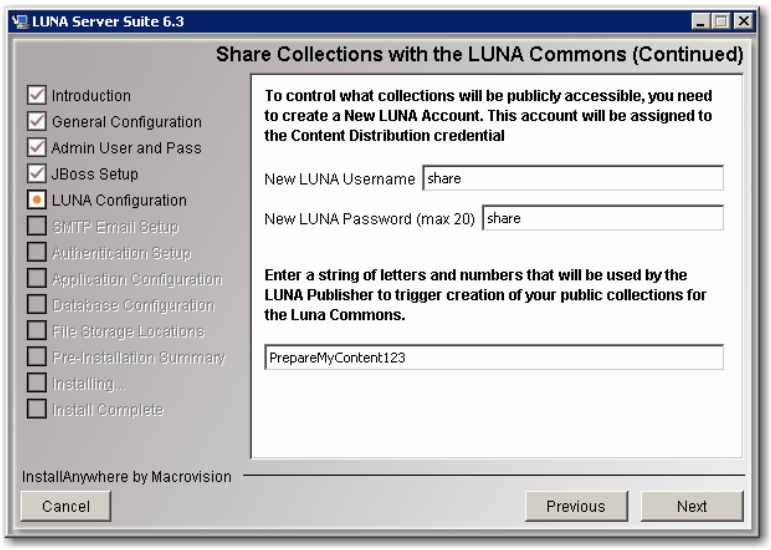
With LUNA you can share some of your collections with the larger LUNA Community.

1. Enter Your LUNA Commons sharing URL.
    - This is the address to your LUNA server. The LUNA Commons Server will use this address to retrieve the collections you decide to share.
2. Enter Your Access ID and Access Password
    - This will be used by the LUNA Commons server to gain access to your selected LUNA collections.
    - By default this has been set to your institution's Short Name and Serial Number.



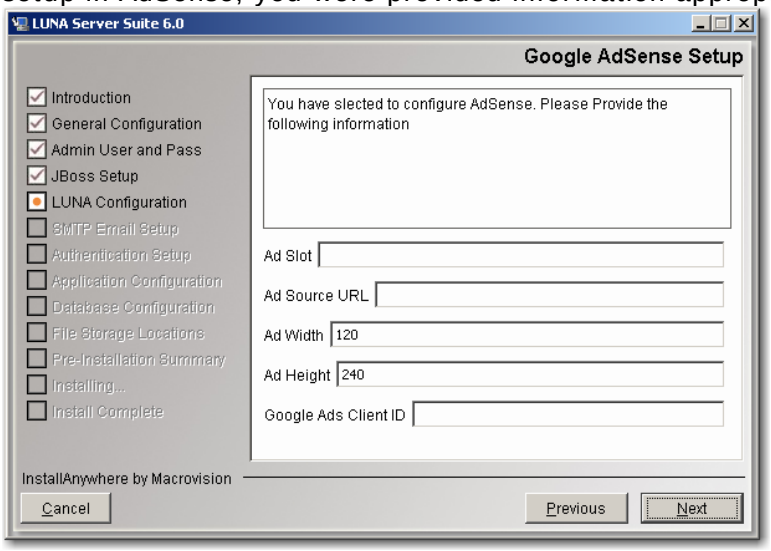
3. Create a new LUNA account
    - This account will be used to define what collections are being shared with the LUNA Community.
    - Once you have collections in LUNA, you can use the Admin Tools to assign collections to the Content Distribution Credential.

4. Enter a string of letters and numbers with no spaces or special characters. This string will be used in the LUNA Publisher to trigger the creation of your public content that you will share with the LUNA Commons.



Google AdSense Configuration

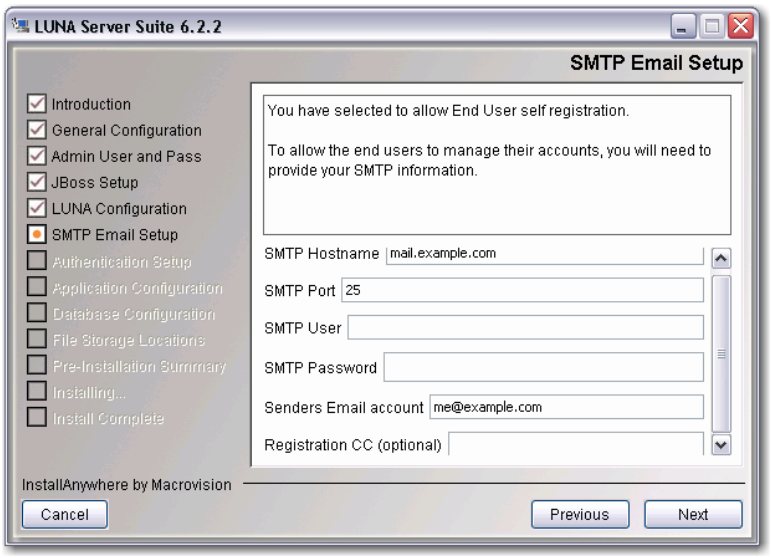
If you are seeing this screen, then you have selected to enable Google ads on your site. You will need to provide specific information to enable this feature properly. During your account setup in AdSense, you were provided information appropriate to this feature.



SMTP Mail Server Setup

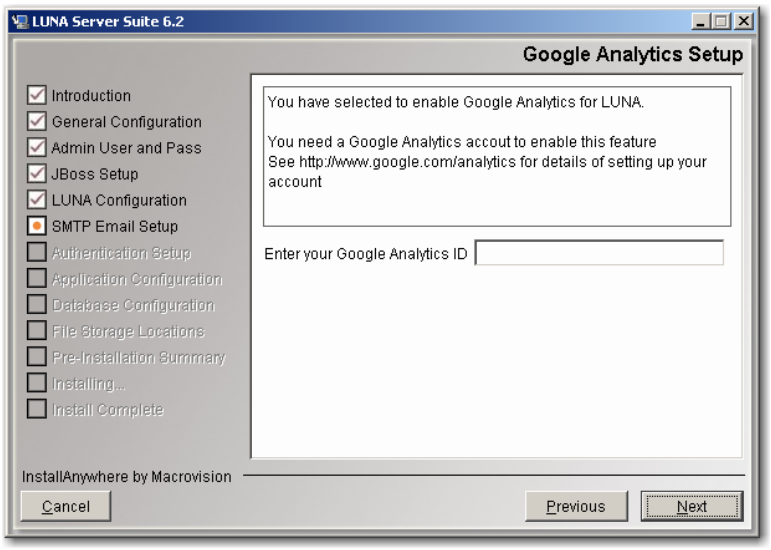
If you selected end user registration, then fill in the following form.

- Your email domain address
- SMTP Port Number
- SMTP User (optional)
- SMTP Password (optional)
- Senders email account (the account end users will respond to if necessary)
- Registration CC (optional) (will cc this email account on any self registration)



Google Analytics Setup

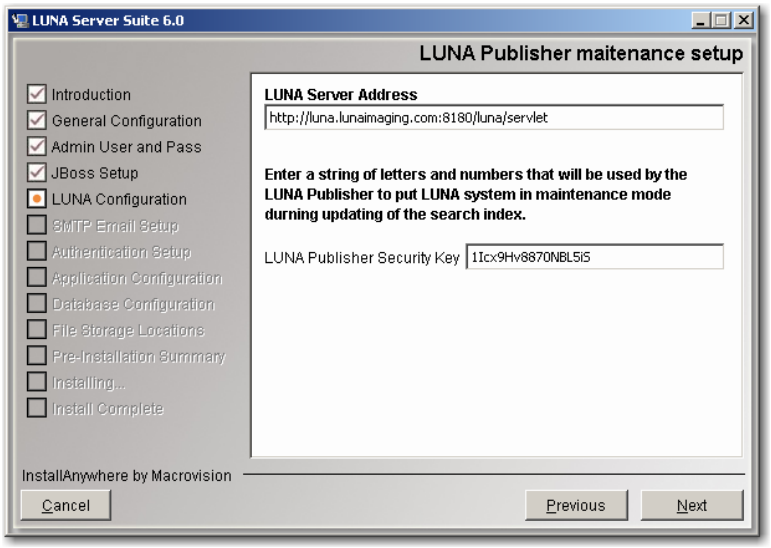
If you selected Google Analytics, you will need to enter your Analytics ID here.



LUNA Publisher Maintenance Setup

The information supplied in this panel is used when LUNA needs to be placed into a maintenance mode so that you can perform server adjustments or when the LUNA Publisher needs to replace the Lucene index with an updated version.

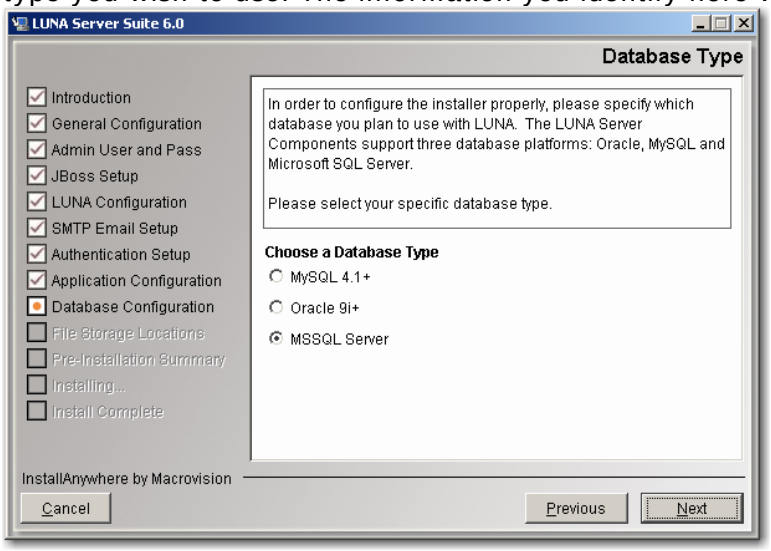
The maintenance mode is invoked via a URL with a security key. We suggest making the security key obscure by using only web friendly characters and letters.



NOTE: If you are Upgrading or Reconfiguring, then skip to LUNA Graphics URL

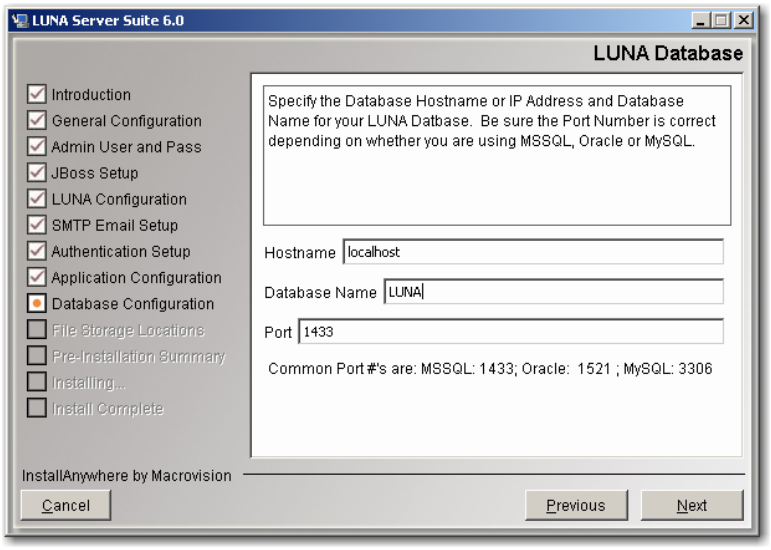
Choosing a Database Type

The installer is designed to connect to your database server and to create database tables, fields and indexes for your LUNA Server and LUNA Publisher. Please choose the database type you wish to use. The information you identify here will be used to configure LUNA.



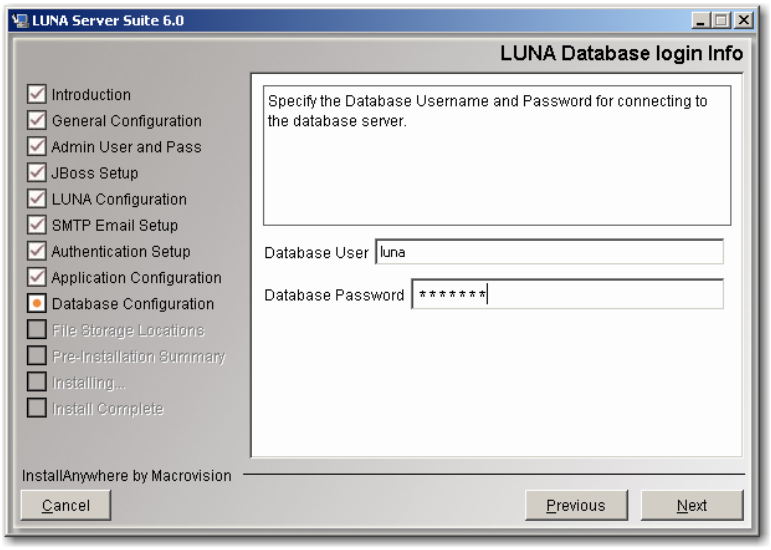
LUNA Database Information

Provide the information necessary to connect to your database, including the hostname, database name (SID Name if you're using Oracle), and database port. The installer will offer default values based on information provided earlier. Review the defaults (and change them as needed).



Database Username and Password

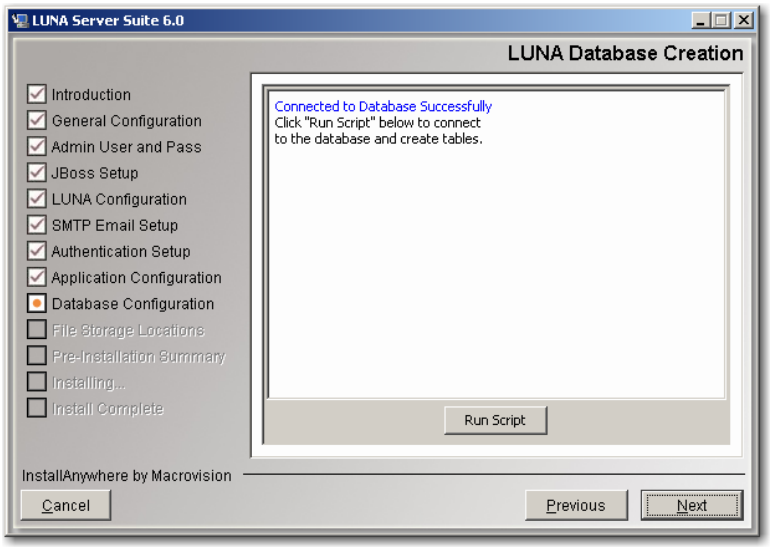
Please specify the username and password for your database. This is the username and password that LUNA should use to connect to the database.



> **WARNING:** the installer will **DROP ALL LUNA TABLES** once it has connected, so be sure that you are not installing over an existing version of LUNA. (The installer will warn you again before it actually drops any tables.)

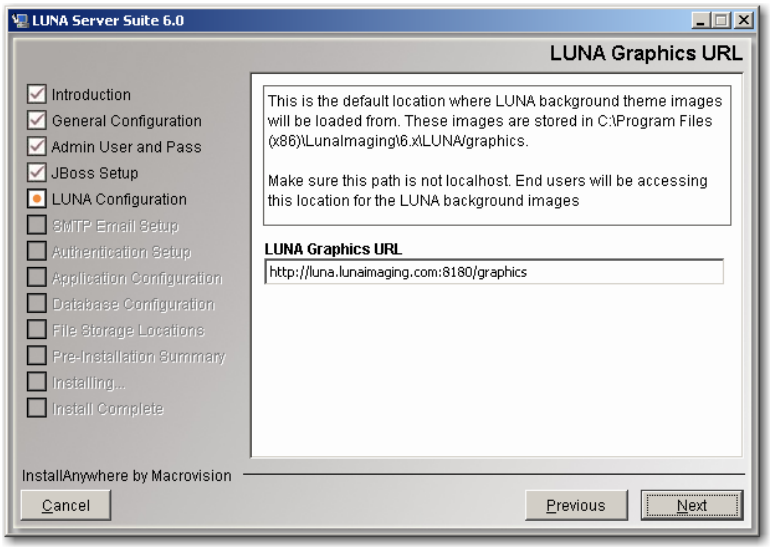
Creating the LUNA Database

Once the installer has tested the connection, it will present you with the database creation script window. Click “Run Script” to create the LUNA tables and indexes.



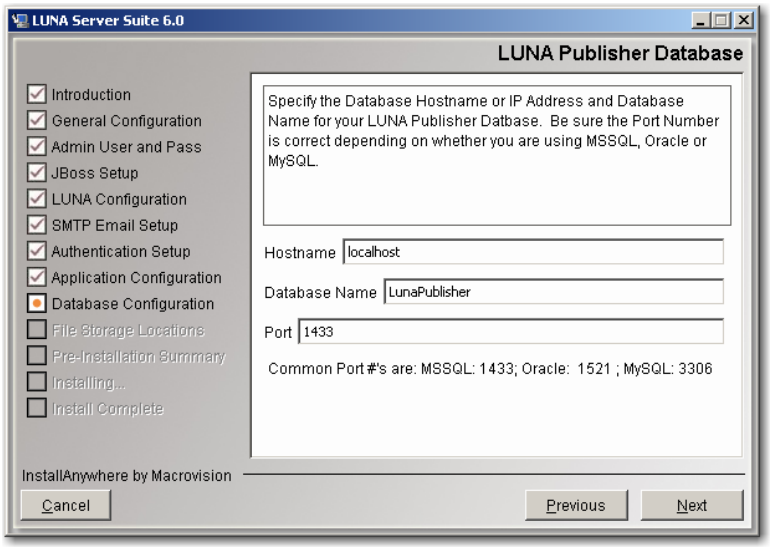
LUNA Graphics URL

The LUNA Graphics URL is used to access LUNA theme header graphics. Just make sure this URL is externally accessible from the installed machine. Do not use localhost or any other internal domain unless you know for sure the content will not be used outside of your institution.



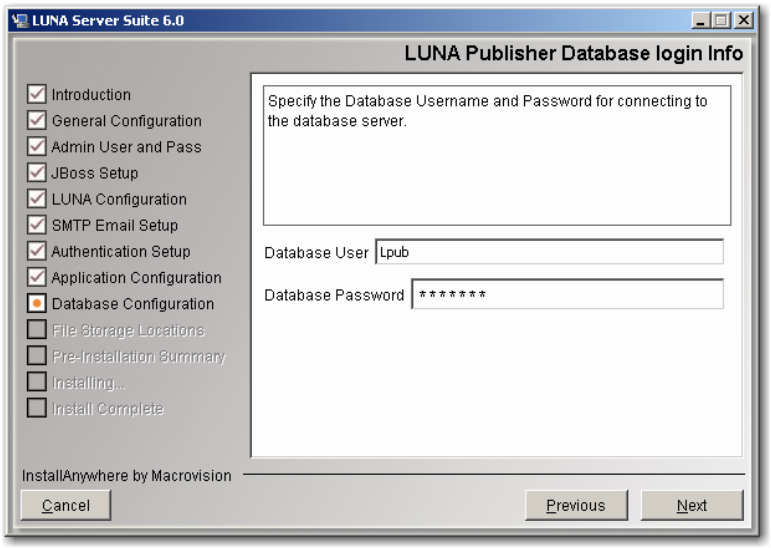
LUNA Publisher Database Information

Provide the information necessary to connect to your database, including the hostname, database name (SID Name if you're using Oracle), and database port. The installer will offer default values based on information provided earlier. Review the defaults (and change them as needed).



Database Username and Password

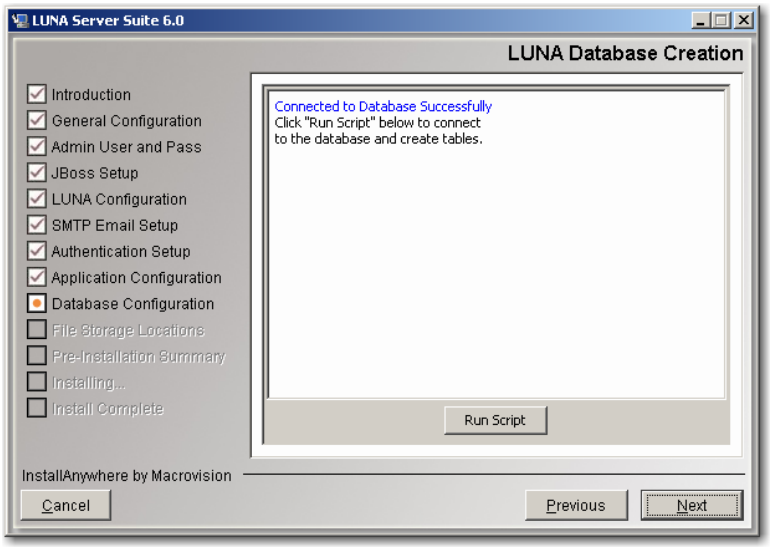
Please specify the username and password for your database. This is the username and password that LUNA Publisher should use to connect to the database.



WARNING: the installer will **DROP ALL LUNA Publisher TABLES** once it has connected, so be sure that you are not installing over an existing version of LUNA Publisher. (The installer will warn you again before it actually drops any tables.)

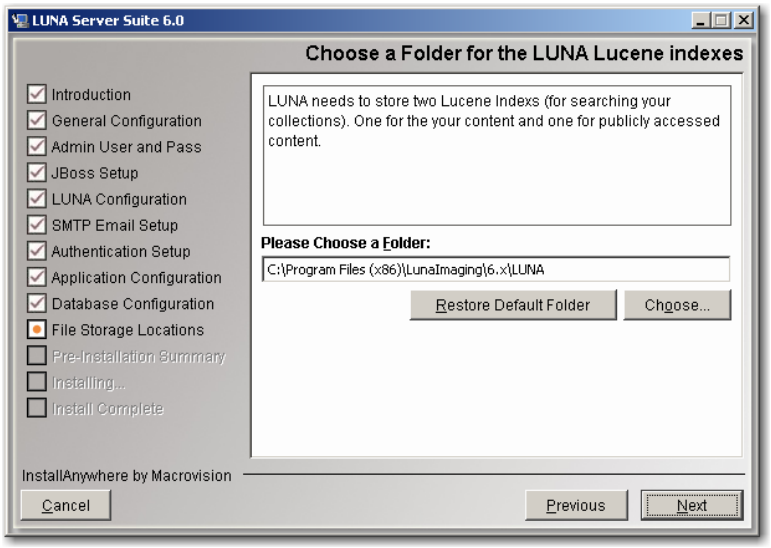
Creating the LUNA Publisher Database

Once the installer has tested the connection, it will present you with the database creation script window. Click “Run Script” to create the LUNA Publisher tables and indexes.



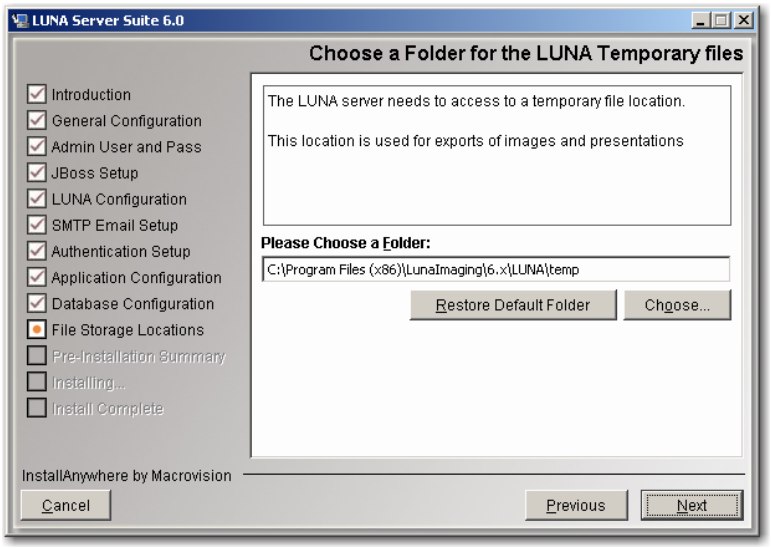
Lucene Index Folders

LUNA uses Lucene to search for content in your collections. These indexes can add up to hundreds of megabytes depending on the content you have in your collections. 160,000 objects takes about 400MB but this is entirely dependent on the size of your collections that you are accessing. So choose an appropriate location that can grow with your collections.



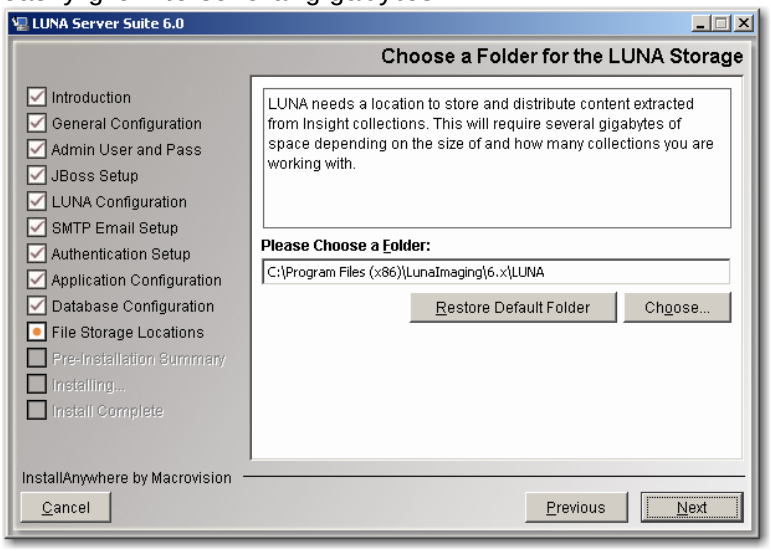
LUNA Temp Files Location

During the use of LUNA, content is exported and this location is used to store that information temporarily.



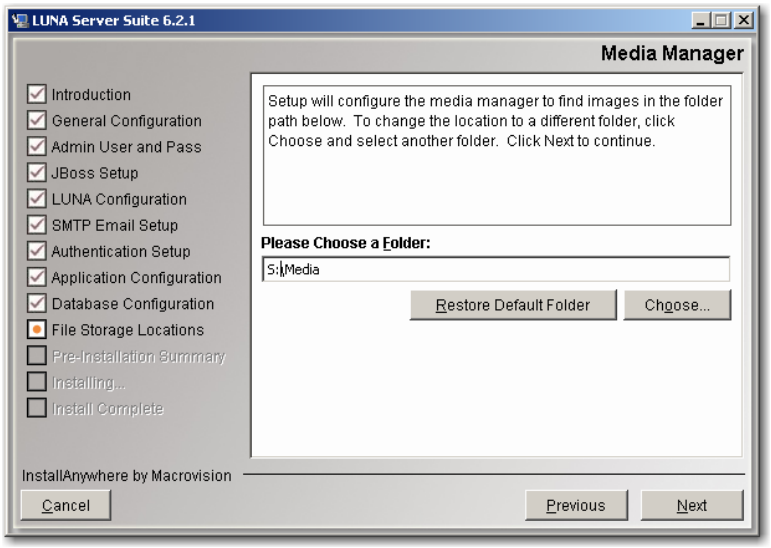
LUNA Storage

LUNA and the LUNA Publisher need space to store information extracted from Insight collections and a place to create the Lucene indexes during the publishing process. LUNA also uses this area for content distribution with the LUNA Commons Server. This area can easily grow to several gigabytes.



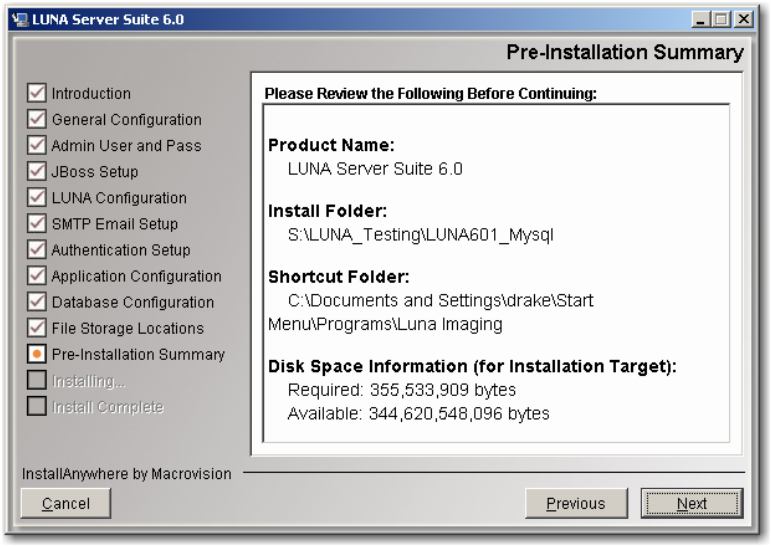
Media Manager for My Uploads Storage Location

The My Uploads server needs a location to store the content that is uploaded to it. Depending on the expected level of use, choose a storage location.

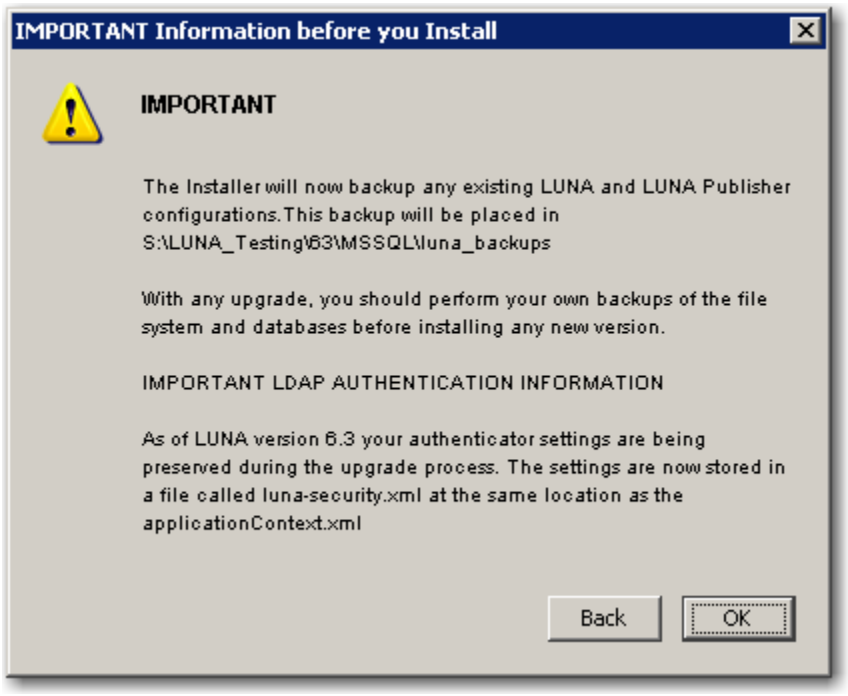


Start the Install Process

This may take several minutes depending on the server speed and how you are accessing the installer.



Before Installing LUNA and the LUNA Publisher you will see this **IMPORTANT** message.



******IMPORTANT NOTE Updated in 6.3 ******

The Installer will now backup any existing LUNA and LUNA Publisher configurations. This backup will be placed in <USER_INSTALL_DIR>/luna_backups

With any upgrade, you should perform your own backups of the file system and databases before installing any new version.

IMPORTANT LDAP AUTHENTICATION INFORMATION

As of LUNA version 6.3 your authenticator settings are being preserved during the upgrade process. The settings are now stored in a file called luna-security.xml at the same location as the applicationContext.xml

Starting LUNA and the LUNA Publisher

You can start these two servers by starting the Tomcat or the JBoss server.

Go to:
<Install Directory>/tomcat/bin
or
<Install Directory>/jboss/bin

For Tomcat:

We have also supplied you with our standard java service wrapper version for starting and stopping the application:
start_jboss.bat on windows and start_tomcat.sh for Linux and Solaris will start tomcat in a console mode.

If you would like to start tomcat as a service on windows, we have supplied you with the install_as_service.bat file.

If you want to run jboss in the background using the java service wrapper on Linux or Solaris, you can start it with:
./tomcat_service.sh start

The script has the following options:
console | start | stop | restart | status

For Jboss:

You can use the standard jboss supplied run scripts run.bat or on Linux and Solaris you can start the servers by executing the run.sh script. If you want to run this in the background we suggest running:
nohup ./run.sh &

We have also supplied you with our standard java service wrapper version for starting and stopping the application:
start_jboss.bat on windows and start_jboss.sh for Linux and Solaris will start jboss in a console mode.

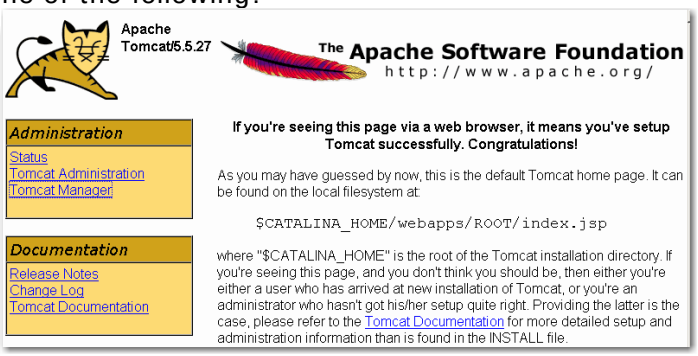
If you would like to start jboss as a service on windows, we have supplied you with the install_as_service.bat file.

If you want to run jboss in the background using the java service wrapper on Linux or Solaris, you can start it with:
./jboss_service.sh start

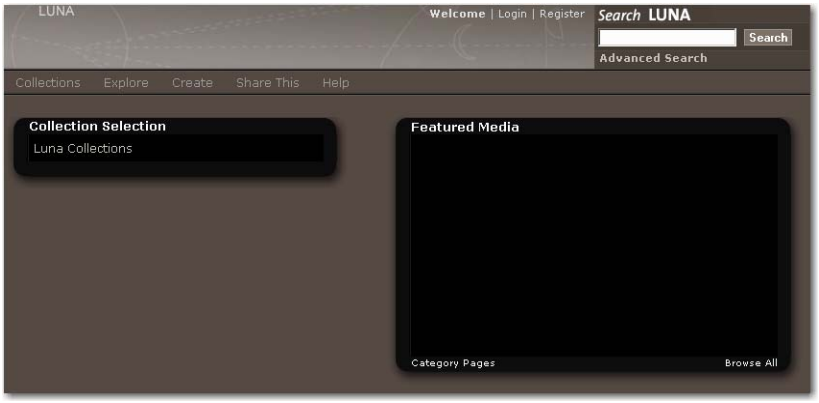
The script has the following options:
console | start | stop | restart | status

Once started go to http://www.example.edu:8180/

You should see something like one of the following:



The LUNA application will now be available at http://www.example.edu:8180/luna/servlet and it will look similar to the following page:



My Uploads Server testing

Testing the Media Manager

In your browser, go to http://localhost:8180/MediaManager/srvr

You should get a message like the following:

Testing the JPEG2000 Decoder

http://localhost:8180/MediaManager/jp2ktest

You should get a page like the following:

If you see any errors, see the **Testing the JPEG2000 Decoder & the Media Manager** in the Install and Configuration Guide.

Adding Insight Content to LUNA

Introduction

It's fairly easy to add Insight content to LUNA but first you should know what LUNA is and what it is not.

LUNA is a search interface and a place to work with media content. LUNA is not the repository of the content. LUNA allows the end user to select, organize and make use of various image and media content.

As of version 6.2.1, LUNA supports three kinds of source content. You can access and use Insight content and you can access and use content from Flickr and content from your own desktop using the My Uploads feature.

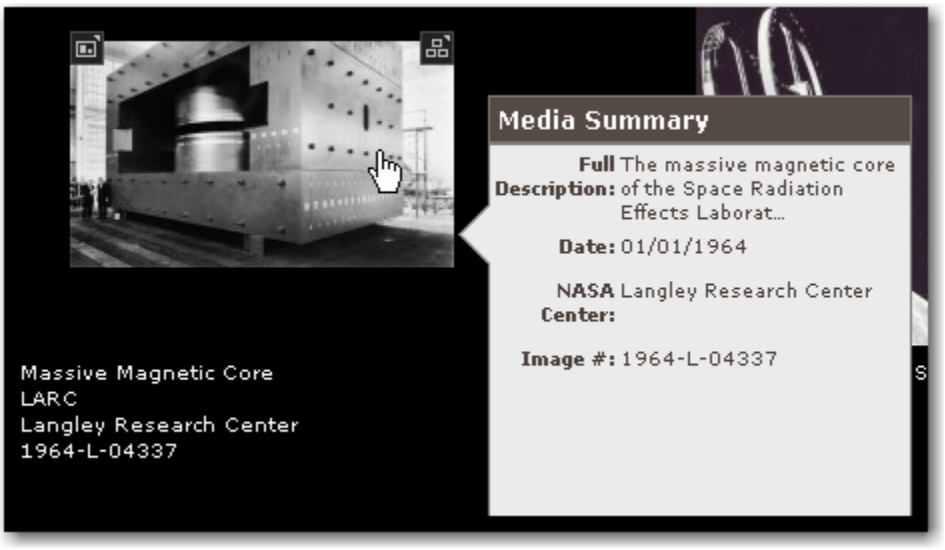
Insight Studio is used to prepare content for LUNA using the LUNA Publisher. This tool is available from the Insight Studio Task Menu.

The LUNA Publisher

So what does it mean to add content to LUNA? Well it's pretty simple; it means extracting all descriptive data from Insight and placing it into an index that LUNA uses to search. It also sets up and provides LUNA with information to connect to the Insight collection.

The LUNA Publisher is the tool you use to do the following:

- Schedule when and how often the LUNA collection index is updated from the Insight Collection.
- Setup LUNA specific characteristics
    - Choose Media Summary fields (provides additional roll-over information).



- Choose the Who, What, When, Where fields used for filtering search results.

- Identify the URL to the LUNA header graphic.

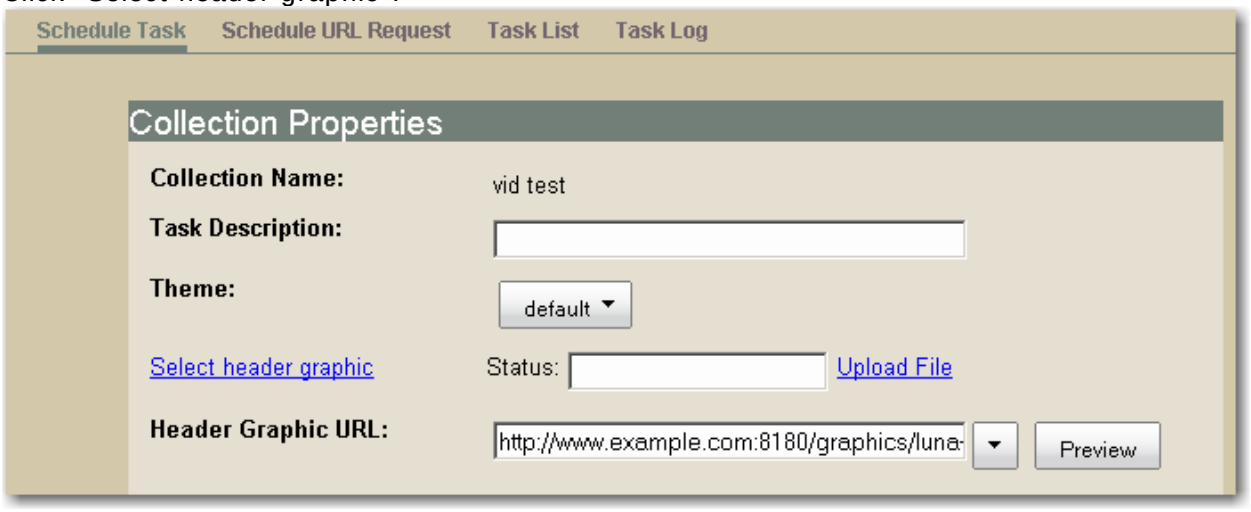
- Using the Merge and Load Task, all individual collection indexes are merged into a single index and then loaded into the live LUNA system.

LUNA Theme Header Graphic

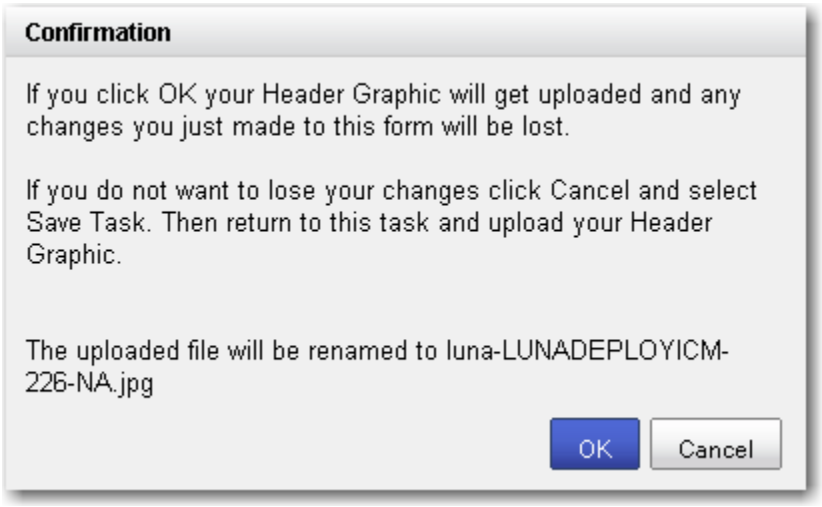
The LUNA theme header graphic is the background that shows up at the top of the LUNA interface and can be different for each collection. This is used to provide collection identity. The graphic needs to be 754 x 65 and should fit the theme being used by fading to a solid color on the right of the graphic (R=133, G=124, B=117 or the hex is #857C75).

To upload your Header Graphic, locate the Header Graphic section of your LUNA Publisher.

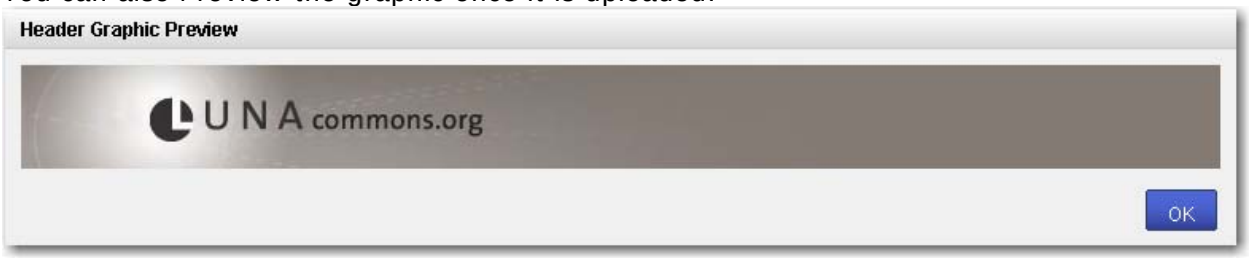
Click “Select header graphic”.



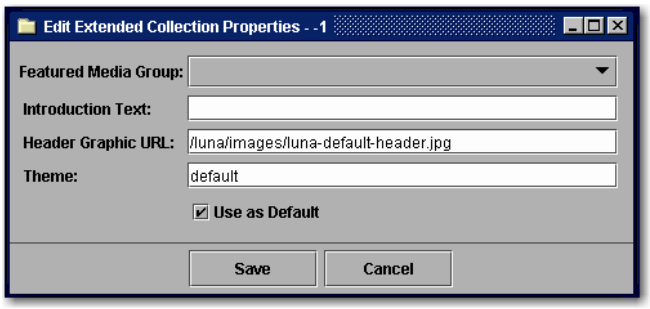
Next, click “Upload File”. You will then be presented with a confirmation dialog box.



You can also Preview the graphic once it is uploaded.



To setup a LUNA header graphic that will be used when more than one collection is being accessed, edit the Extended Collection Properties for the “-1” Collection ID.



The default is set to /luna/images/luna-default-header.jpg

Note: This path refers to an image stored within the LUNA software. This is used as the default location.

Let's Get Started

Prerequisites

You need the following to proceed:

- LUNA and the LUNA Publisher need to be installed and running.
- 6.x version of Insight Studio configured with access to the LUNA Publisher.
- At a minimum, the language bundles on the Insight User Manager need to be updated.
- Insight Studio access to the collections you will be adding to LUNA.
- Inscribe access to the collection(s) you will be publishing.

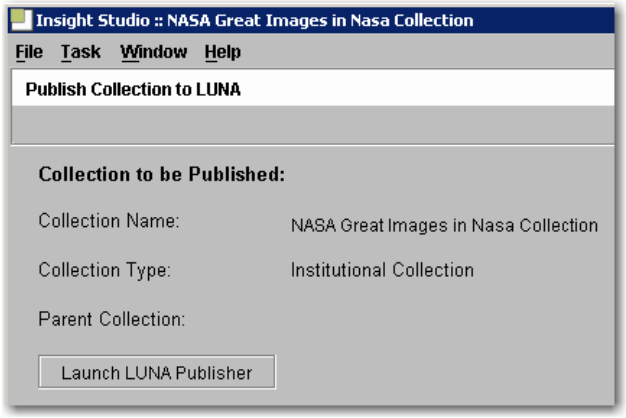
Note: The LUNA Publisher pulls the descriptive metadata and media information from a form of Inscribe. In certain collections that were created prior to 5.x, this content may not be properly accessible. If you do not see the correct images or data in the Inscribe tool, contact Luna's support department for assistance in preparing your collection for LUNA.

Collections that were created in Insight 5.x+ will not have this issue.

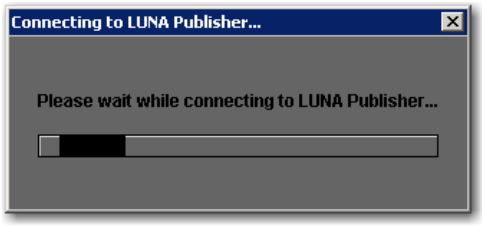
Publishing a Collection

Start Insight Studio, select the collection you want to publish to LUNA and from the Main Task Menu select the LUNA Publisher.

Next, select "Launch LUNA Publisher".

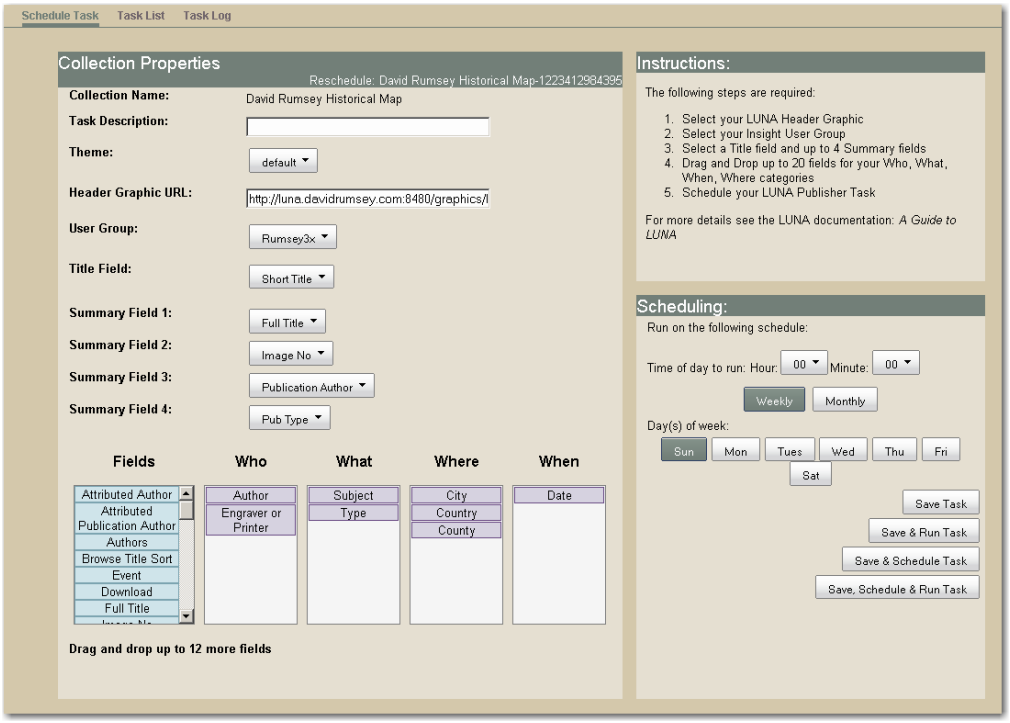


This will launch a web browser and connect to the LUNA Publisher.



Once in the LUNA Publisher, you can make your selections in the following areas:

- Enter a Task Description (optional).
- Choose the Theme for your collection.
    - Only “default” is available in the initial release of LUNA. Additional themes will become available in the future. These new themes will change the color scheme of the entire application.
- Choose the LUNA Header Graphic URL for your collection. If you have not selected one, the default graphic will be used.
- Choose the Insight User Group that will be used to access the data from your Insight Collections.
- Select the Title Field from the drop down list. This Title will be used to identify individual media items on several pages within the LUNA application, such as the Detail view and as a label in a slideshow.
- Select up to 4 Summary Fields to display. The Summary Fields will display as the user moves their mouse over the thumbnail images.
- Drag and Drop up to 20 fields into the Who, What, Where and When categories.
- Choose a recurring schedule for the LUNA Publisher to perform updates of the LUNA search index.
- You have 4 options When completing this task
    - Save Task (will only save the task)
    - Save and Run Task (will save and run the task now)
    - Save and Schedule Task (will save then execute the task on a schedule)
    - Save, Schedule and Run Task



Once you schedule this task, the LUNA Publisher will do the following:

- Archive the data from Insight.
- Produce an Index for the Collection.
- When the Merge and Load task is activated, all collections that have been indexed will be merged and the new Master Index will be created and placed on the live LUNA server.

Note: You need to activate the Merge and Load task before LUNA will make the collections live.

Note: Before continuing on to the step of activating the Merge and Load task, you'll need to wait until the task is complete. To confirm that the scheduled task has completed, click on Task List in the main menu at the top or refresh your browser. In the Task List, the message under the Status column should read "inactive", which means you can begin the Merge and Load task.

Activating the Merge and Load task

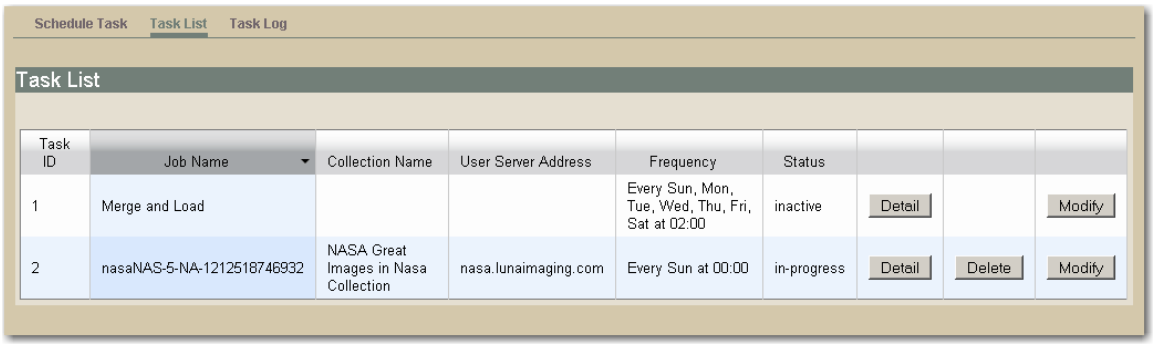
So what is Merge and Load?

During the Publishing process, a collection is turned into a searchable index for a specific collection. Each index is stored in the collection_indexes folder on your server.

Once you have published all collections that you currently want to make available in LUNA, these separate published indexes need to be merged into a single index. Then when the merge process is complete, the merged index needs to be loaded as the active current index. Once loaded you can search all collections that have been published to LUNA.

Now to activate the Merge and Load task

In the LUNA Publisher task list, locate the Merge and Load task. This will be the one without a delete button. Click the Modify button.



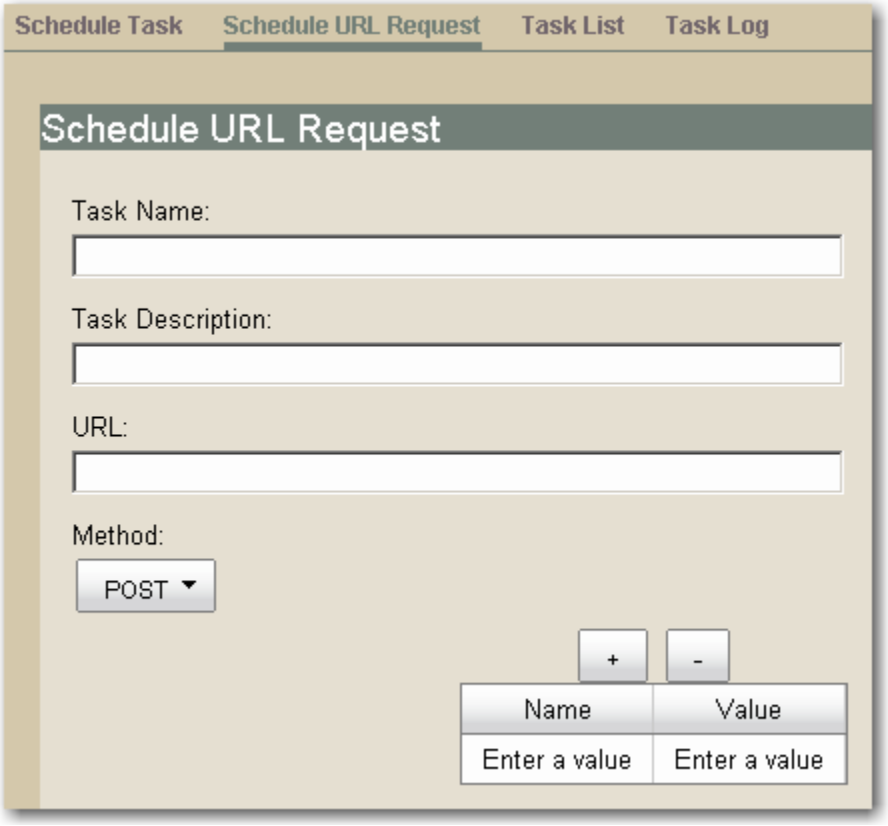
- Now set your preference on how often the Merge and Load task will take place. If you want it to run every night at 2am, select all the days of the week and change the hour to 02.
- You have 4 options When completing this task
    - Save Task (will only save the task)
    - Save and Run Task (will save and run the task now)
    - Save and Schedule Task (will save then execute the task on a schedule)
    - Save, Schedule and Run Task

Schedule URL Request

A URL Request is a special task and will most likely not be created by LUNA administrators. Two URL Request tasks are created by default during installation "Get LUNA Public Content" and "Prepare Public Content".

These tasks make request to the LUNA server to activate an operation on the server. The "URL" specified in the request will be called at the time of the request and Name and Value pairs will be passed to that server in a Post action.

This is similar to what happens when you fill a form out on a website and press send.



Testing your LUNA Collections

Once your collection(s) have been Published, Merged and Loaded, you will be able to view your Collections in LUNA. You may need to login or adjust your credential settings to get access to your collections.

The address to your LUNA collection will be similar to the following.
http://www.example.edu:8180/luna/servlet

If you would like to access your collection(s) without the port number (8180), you will need to configure the system to use the AJP connector. There are instructions on how to work with the AJP Connector for both Apache and IIS available on the web.

This document does not cover how to configure the AJP connector.

Migrating Insight Media Groups and Shares to LUNA

Introduction

You can perform a one time only migration of Media Groups and Share Folders from your Insight Collections to LUNA.

This process is a single direction process and you will NOT be able to synchronize Media Groups between LUNA and Insight.

You should plan your timing of this process carefully. This should be done with your end users knowledge of what and when this process will take place. Your end users may have a significant amount of work invested in creating and managing these Media Groups and Shares. They should also be very familiar with the new LUNA interface and how they can access their Media Groups once migrated.

Migrating the Content

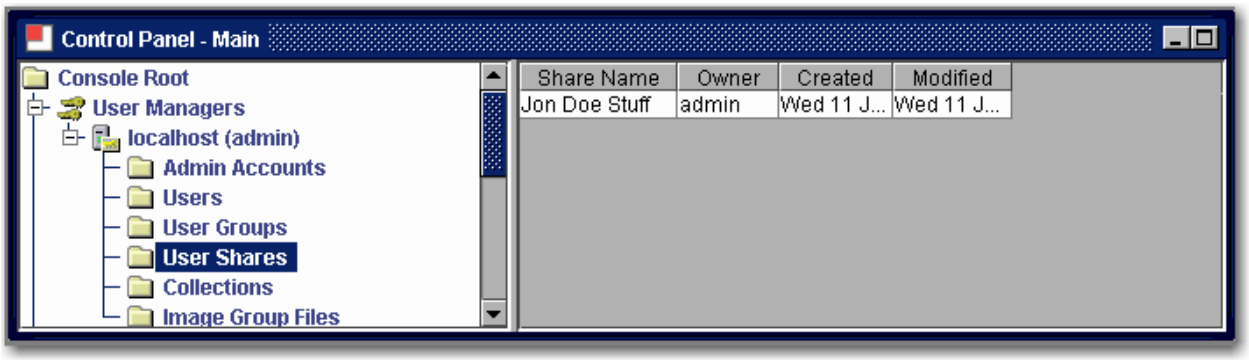
Prerequisites

On the Install disk for LUNA you will find the utility for the migration in \utilities\media_group_migration_to_LUNA folder

- You will need access to each Insight Collection Manager on your server and database port access. Basically, if you can run the Admin Tools from the machine doing the migration, then you have sufficient database access to perform the migration.
- You will need the InsightServer.dat for each collection you plan to migrate the Collection level Groups from.
- You need the InsightUserServer.dat for the User Manager.
- You need the LunaServer.dat that was created at the Install time of LUNA. This file is contained in <LUNA Install directory>/resources/For_Media_Group_Migration

These files have the database connection information in them and will be used for the migration.

- You will need access to the User Managers Image-Group-Files folder. This can be a copy or the original.
- The utility uses Java 1.4 and it will need to be available for the migration. All of the Insight servers use Java 1.4 so you can reference the Insight Server version.
- Make sure all Shares have an owner. This can be done using the Admin Tools and looking at the Owner Column of the User Shares. If they do not have an owner, please assign one or a random owner will be assigned at the time of migration.



IMPORTANT NOTE
If you are migrating virtual collections, you will need to modify the **VCIDToLunaIID.txt** file.

On the left enter the Insight VCID for the collection
VC_Archivision_Digital_Research_Library_(Base-1)

Then enter a tab character

Next enter the Institution ID for the LUNA collection
ARCHIVISIONACM_Base-3

For example:

VC_Archivision_Digital_Research_Library_(Base-1) ARCHIVISIONACM_Base-3

Do this for each virtual collection you are migrating from.

Steps for the Collection Level Group Migration

1. Copy the media_group_migration_to_LUNA folder to the location where you will perform the migration.

2. Copy the LunaServer.dat into your media_group_migration_to_LUNA folder.

3. Edit the LunaServer.dat.

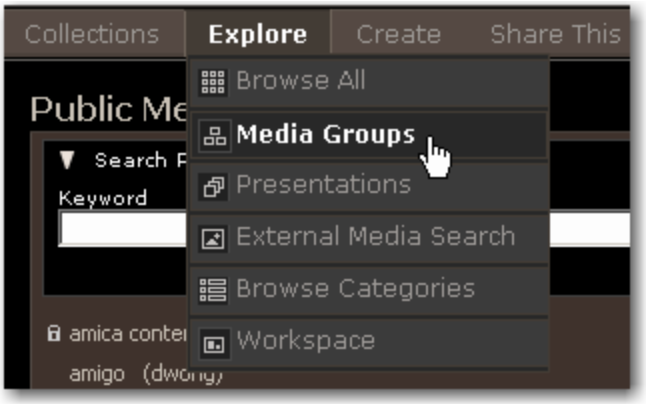
    1. Modify the MediaGroupDefaultPassword= property to set the password used to Protect the Media Groups in LUNA.
    2. Set the ImageGroupFileDir= to point to the Image-Group-Files folder.

4. Copy the InsightServer.dat into your media_group_migration_to_LUNA folder.

5. Edit to the run_collectiongroupexport.bat (windows) or run_collectiongroupexport.sh (Linux or Solaris) to point to a local version of Java 1.4 if it is not in your PATH environment.

6. Execute the run_collectiongroupexport script (only once) if you run this twice, you will end up with duplicate Media Groups.

7. Verify that the Media Groups are in your LUNA system located in Explore/Media Groups.



8. Repeat for each Collection Manager that you are migrating Collection Level Media Groups from by replacing the InsightServer.dat.

Steps for Migrating Insight Shares and Media Groups

1. Copy the media_group_migration_to_LUNA folder to the location where you will perform the migration.

2. Copy the LunaServer.dat into your media_group_migration_to_LUNA folder.

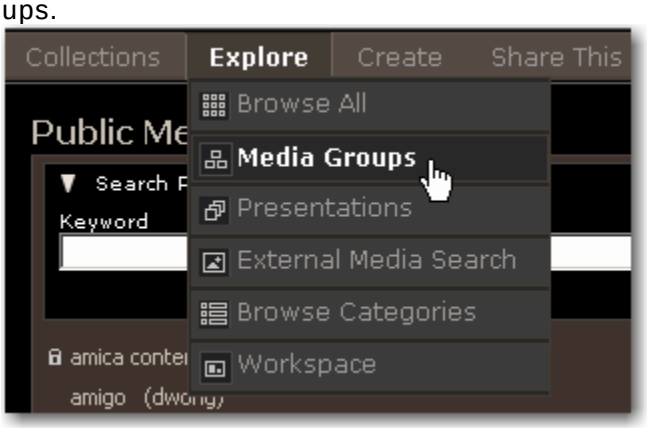
3. Edit the LunaServer.dat.

    a. Modify the MediaGroupDefaultPassword= property to set the password used to Protect the Media Groups in LUNA.
    b. Set the ImageGroupFileDir= to point to the Image-Group-Files folder.

4. Edit to the run_shareexport.bat (windows) or run_shareexport.sh (Linux or Solaris) to point to a local version of Java 1.4 if it is not in your PATH environment.

5. Execute the run_shareexport script (only once). If you run this twice, you will end up with duplicate Media Groups.

6. Verify that the Media Groups are in your LUNA system located in Explore/Media Groups.



Managing LUNA with the Administrator Tools

Introduction

The Administrator tools have been enhanced to incorporate tasks for managing the LUNA application and configuration.

In the Administrator Tools you can:

- Manage user rights
- Manage Credentials
- Manage IP range access privileges
- See what collections LUNA has loaded
- Manage the LUNA Application Configuration
- Manage the Collection Properties
- Place the LUNA Application into maintenance mode

Managing User Rights and Access Privileges

Before defining how to manage users and their privileges, you need to understand what options exist and how they are integrated with current Insight User Management.

If you have been working with Insight, then you should be familiar with how Insight grants access to collections. LUNA can work with existing Insight authenticators to grant your users access to your collections.

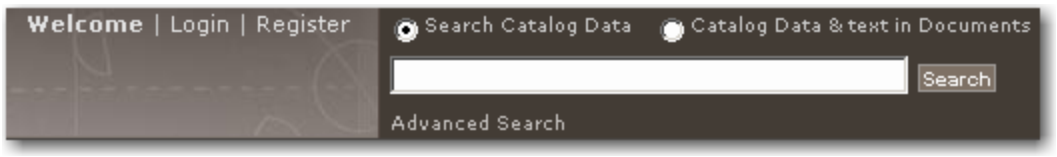
During your installation, you were asked for your User Manager's address. If you are using the default Insight User Manager to grant access to your collections, then you do not need to do anymore work to allow your users access to collections in LUNA.

LUNA also has several other authenticators that can be used to grant access to your Collection resources.

- LUNA self registration and user management
- Integrate with Active Directory LDAP
- Authenticate via LDAP

LUNA Self Registration

During the install process you were given the option to let users self register in LUNA. If you selected this option you will see the Register option at the top of the LUNA application.



This allows the user to create and manage their own account in LUNA. Once registered, the user will be granted the default privileges defined in the default Credential.

Integrate with Active Directory Using Kerberos and LDAP

As with Insight, LUNA can be integrated with Active Directory to grant access to your Collections.

To configure LUNA with your Active Directory server, you will need to contact our support department for instructions on your specific configuration lunasupport@lunaimaging.com. This document does not go into the configuration details of Active Directory integration.

Integrate with LDAP

As with Insight, LUNA can be integrated with LDAP to authenticate your users and grant them access to your collections.

To configure LUNA with your LDAP server, you will need to contact our support department for instructions on your specific configuration lunasupport@lunaimaging.com. This document does not go into the configuration details of LDAP.

Advantages of LUNA Authentication Methods Not Available in Insight Java Client

LUNA authentication has been designed to be more flexible to allow for future authentication methods and to allow for mixed authentication methods to be used.

LUNA can be configured to use more than one authentication method in your environment. LUNA can be setup to step through any number of authenticators. For example:

- You can have LUNA access the Insight User Manager and also allow for LUNA self registration.
- You can have an LDAP server authenticate and use the Insight User Manager to grant access to individuals who are not in your LDAP server.

There are many ways LUNA can be configured. Please contact lunasupport@lunaimaging.com for any questions you might have.

LUNA's Escalating Collection Access

LUNA has also been designed to grant increasing access as a user passes certain conditions.

At your institution you may want to do the following:

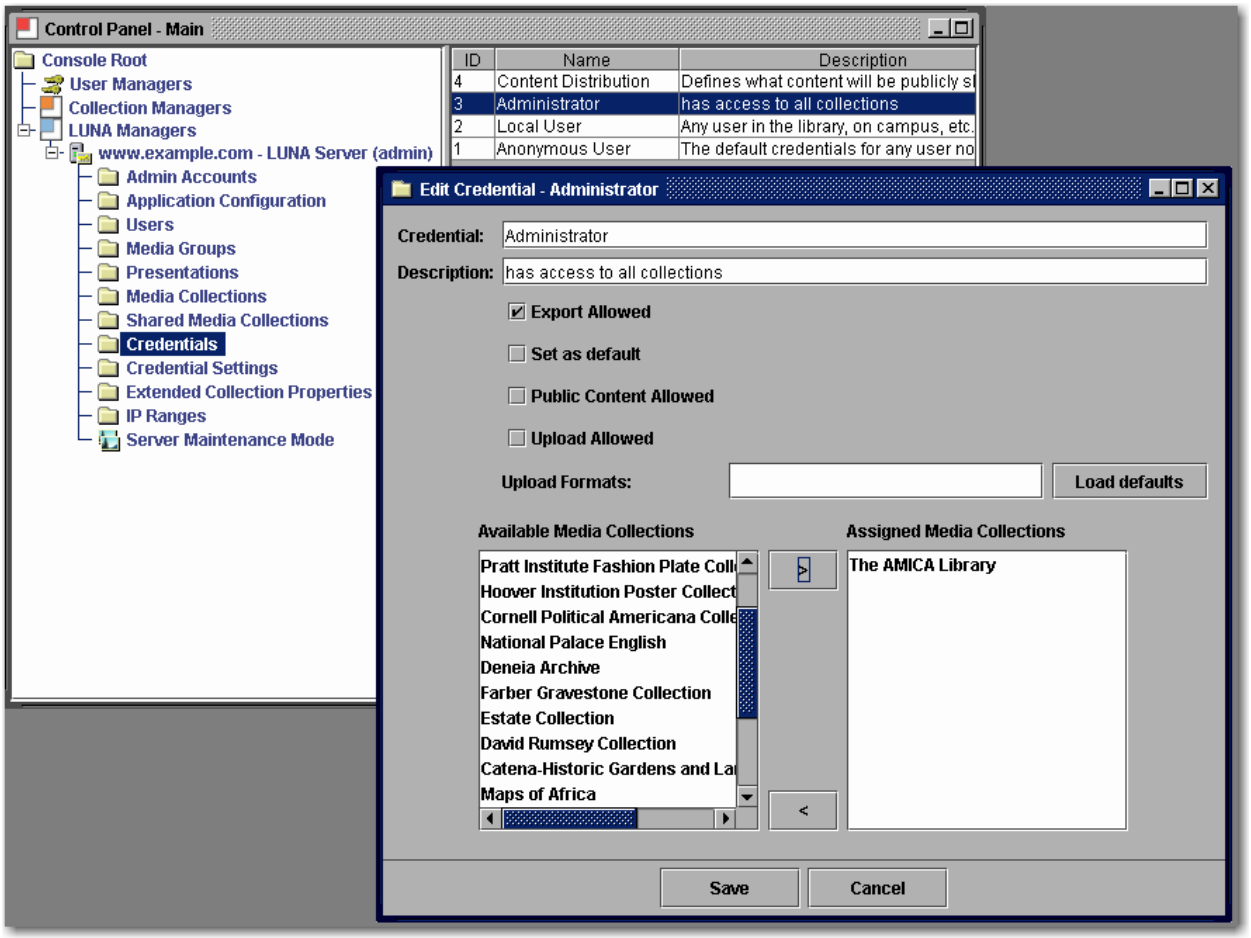
- Level 1 anonymous user - off site but you still want to make some of your collections accessible.
- Level 2 (within a lager block of IP's) – on site privileged collections are accessible.

- Level 3 (within a restricted block of IP's) – on site but in a particular area where the user is granted access to restricted collections.
- Level 4 (logged in to LUNA) - granted access to even more collections with the ability to export.

This is a very flexible system and can meet many needs for granting varied collection access.

Credentials

Credentials are used to define a set of privileges to selected collections.



There are four Credentials by default in your LUNA application. You are responsible to define what each one of these will be used for. You can create as many Credentials as you want.

With a Credential you can:

- Define what collections are accessible
- Indicate if exporting will be allowed (this includes media and presentation exports)
- Define it as the default (only one allowed)
- Indicate if the LUNA Commons (publicly shared collections) will be accessible
- Grant Access to My Uploads
- Define the My Upload formats that a user can upload to LUNA

Only one credential can be assigned to:

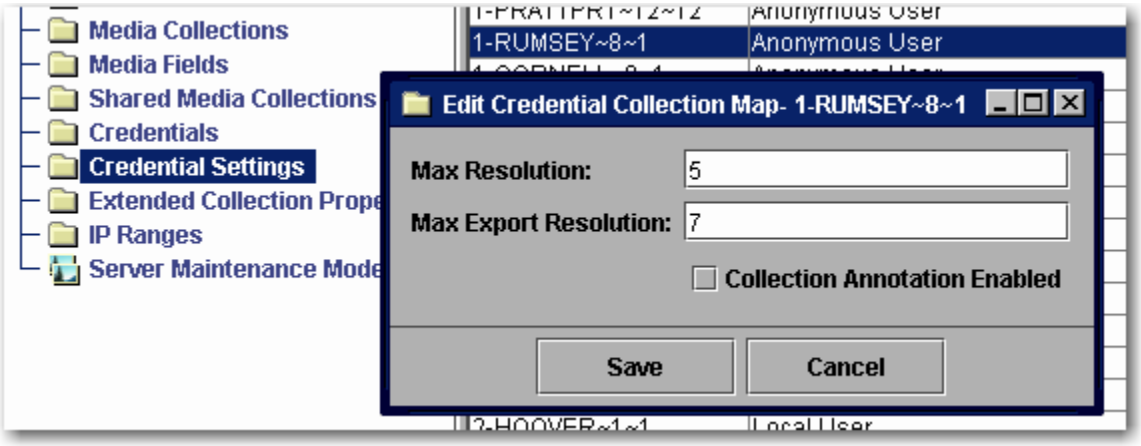
- An IP Range
- A User

- Default (Anonymous User)

> Run Maintenance Mode twice to load your new Credential settings.

Credential Settings

Credential settings enable collection level control of various privileges.



Max Resolution

Controls avalible viewing resolution

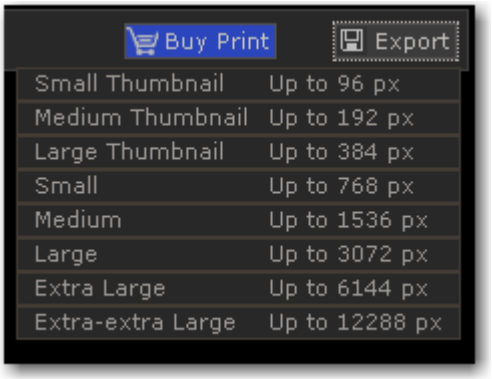
Three options are available: 3, 4 and 5.

- 3 indicates the user has up to Size 3 access (768 pixels on the long side).
- 4 indicates the user has up to Size 4 access (1536 pixels on the long side).
- 5 indicates the user has full access privileges to the images.

Access to LUNA Size 2 and lower (384 pixels on the long side) are automatically assumed, these resolutions are used for the thumbnail images.

Max Export Resolution

Control what resolutions are available for download in the detail view.



LUNA Size	Dimensions
0	– up to 96 pixels on the long side

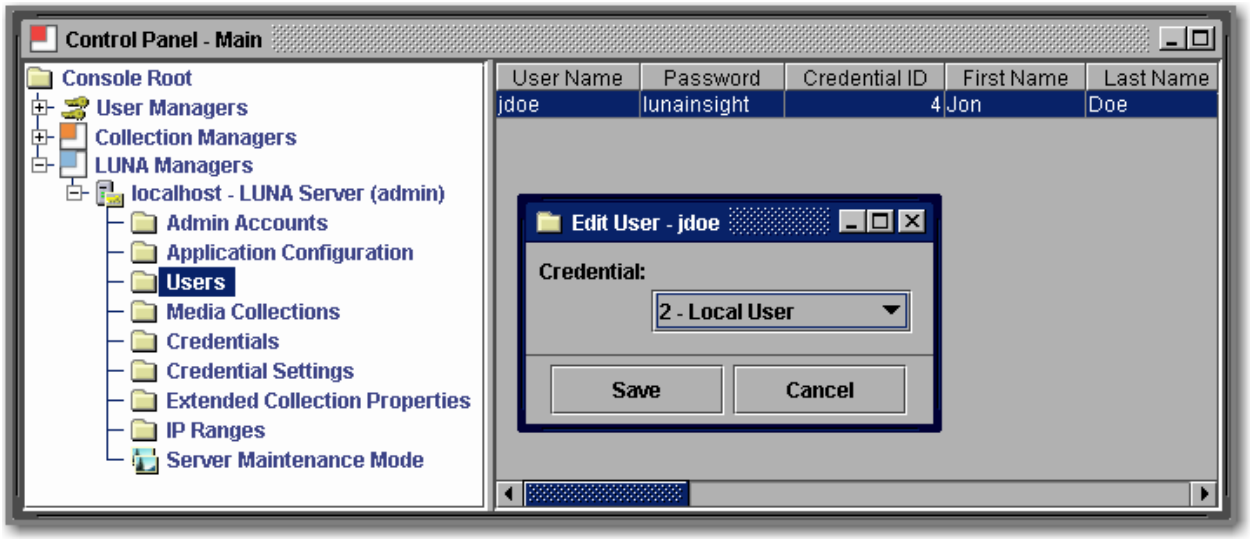
1	– up to 192 pixels on the long side
2	– up to 384 pixels on the long side
3	– up to 768 pixels on the long side
4	– up to 1536 pixels on the long side
5	– up to 3072 pixels on the long side
6	– up to 6144 pixels on the long side
7	– up to 12288 pixels on the long side
8	– up to 24576 pixels on the long side

Collection Level Annotation

This grants the user the ability to save an annotation that will be accessible to all users for a specified collection.

User Settings

Each user will be assigned a credential.



Users cannot be added from the Admin Tools. Instead, they will be created through the following:

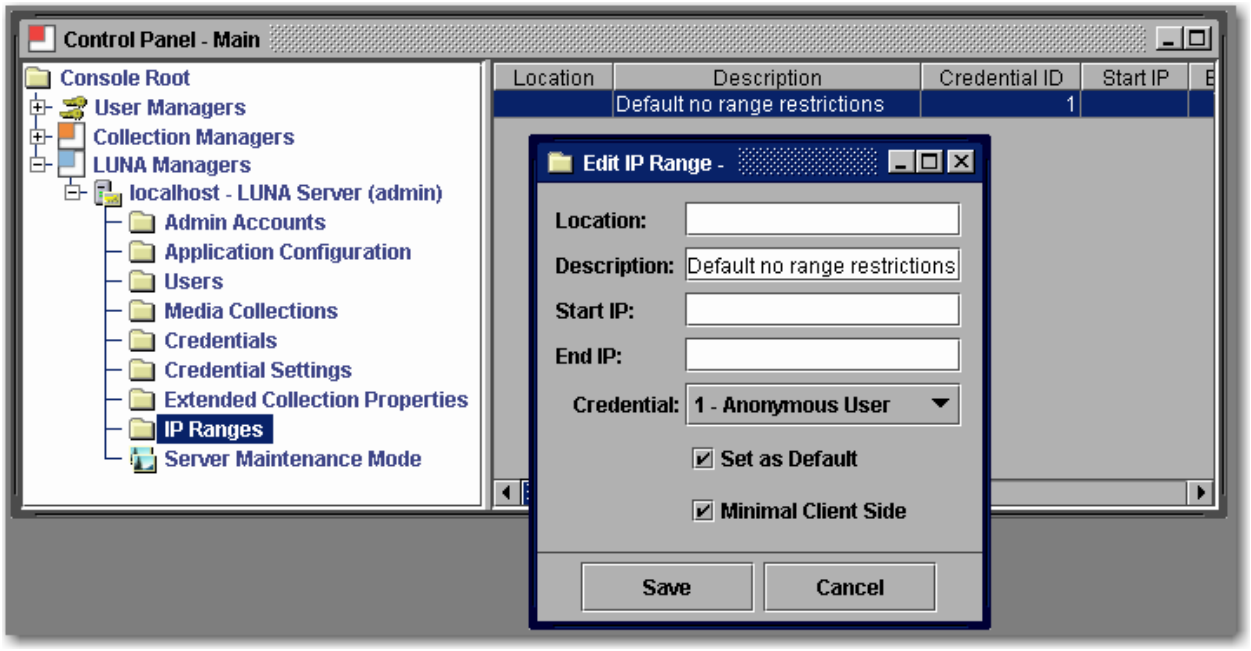
- User Self Registration (passwords will display in Admin Tools)
- Automatically migrated from the Insight User Manager on first login (passwords never copied)
- From Active Directory (passwords never copied)
- From LDAP (passwords never copied)

Each authenticator will add its own user and each user is granted the default Credential. You can reassign a Credential to a user at any time.

If you are using the Insight User Manager to get access to your collections, you will receive access to all collections you had access to in Insight.

IP Ranges

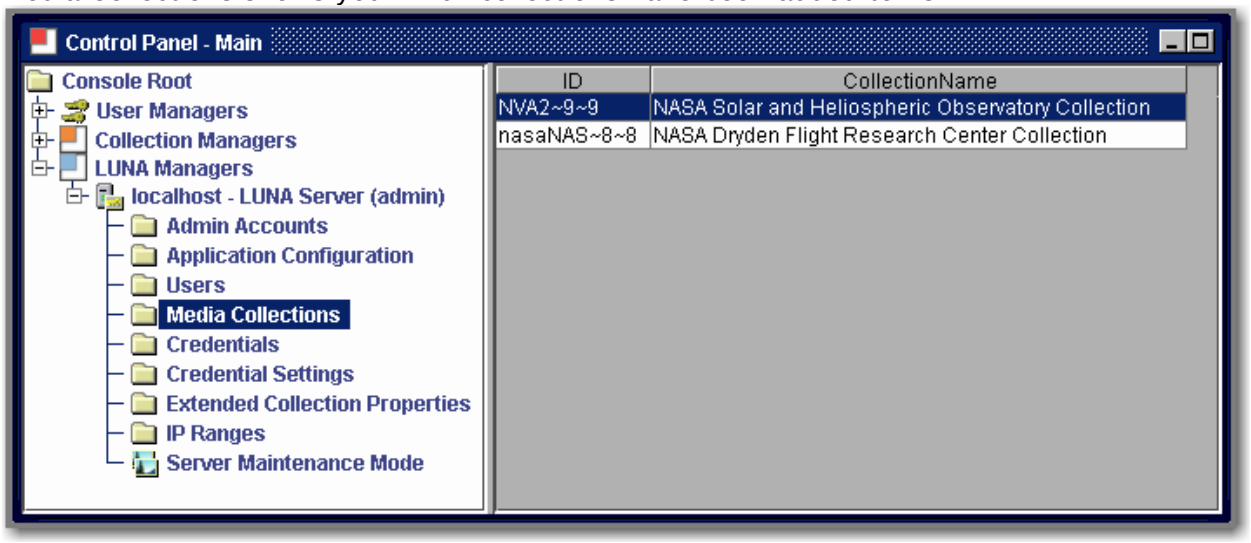
IP Ranges are another way of assigning Credential level privileges. You can set up IP ranges to grant access to specific areas and access to specific content.



> Run Maintenance Mode twice to reload your new settings. Also to test make sure you quit all browsers on the tested system then test your access change

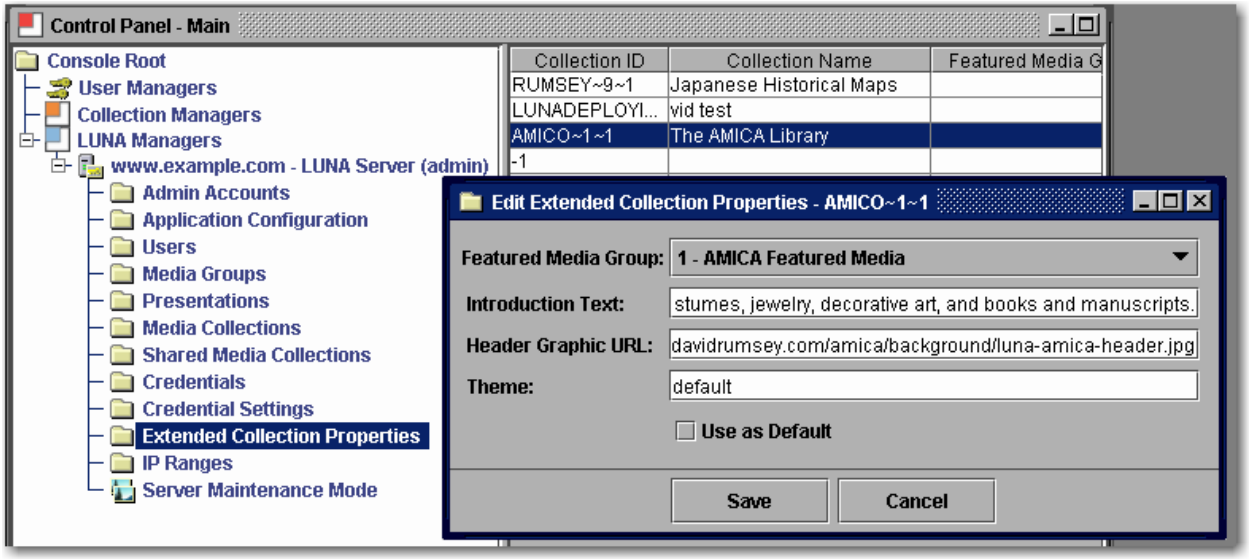
Media Collections

Media Collections shows you which collections have been added to LUNA.



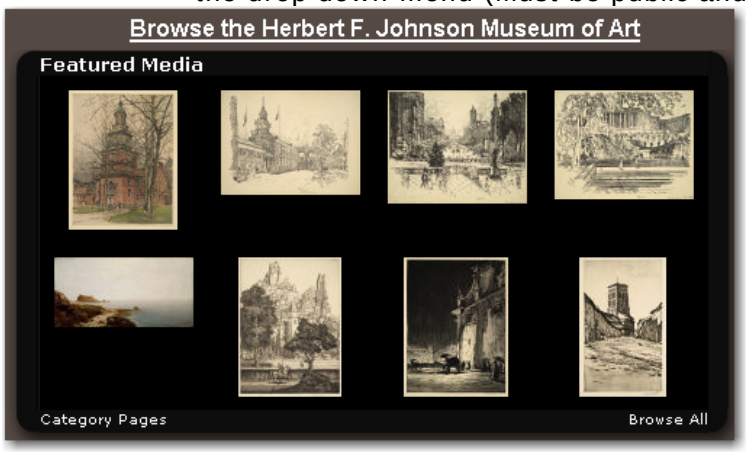
Extended Collection Properties

Extended Collection Properties are provided to allow you to make changes your collections.



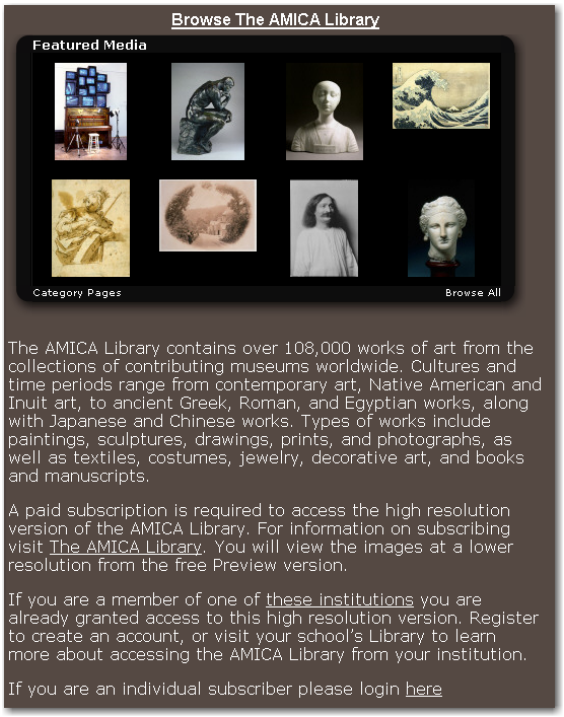
Extended Collection Properties will allow you to do the following:

- Set the Media Group that is used for your Featured Media on your Collections Page. This will allow the end user to see a selected set of media for the specified collection.
    - To use this option, first make a Media Group in LUNA then select the group in the drop down menu (Must be public and not password protected).



- Redefine the collection's Introduction Text (this text is automatically pulled from your Insight Collection and may not need to be updated). However you can modify your collection description using Insight Studio and include hyperlink anchor tags. If you want the links to be a specific color or look, style them in the anchor tag (may not display in the Insight client).
  For example

```
<a style="color:white;" href="http://www.lunaimaging.com/">Luna Imaging</a>
```

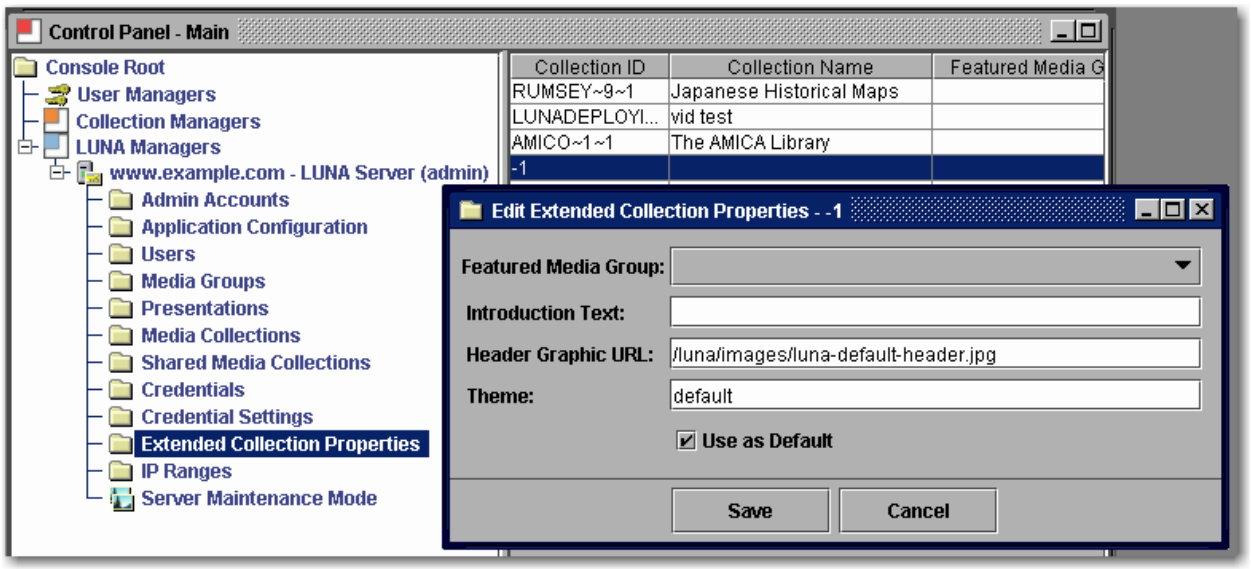


- Change the Header Graphic URL. This Graphic must be exactly 754 x 65 pixels and be available from any browser accessing the collection.

- Indicate what theme will be used by your collection. At the time of this release, only "default" is available. In the future other themes that will define the entire color scheme of the application will be available to set. If you would like to participate in defining Themes, please contact Luna's support department lunasupport@lunaimaging.com.

Defaults for Multi Collection Access

Collection ID -1 is the default used for any user accessing more than one collection.

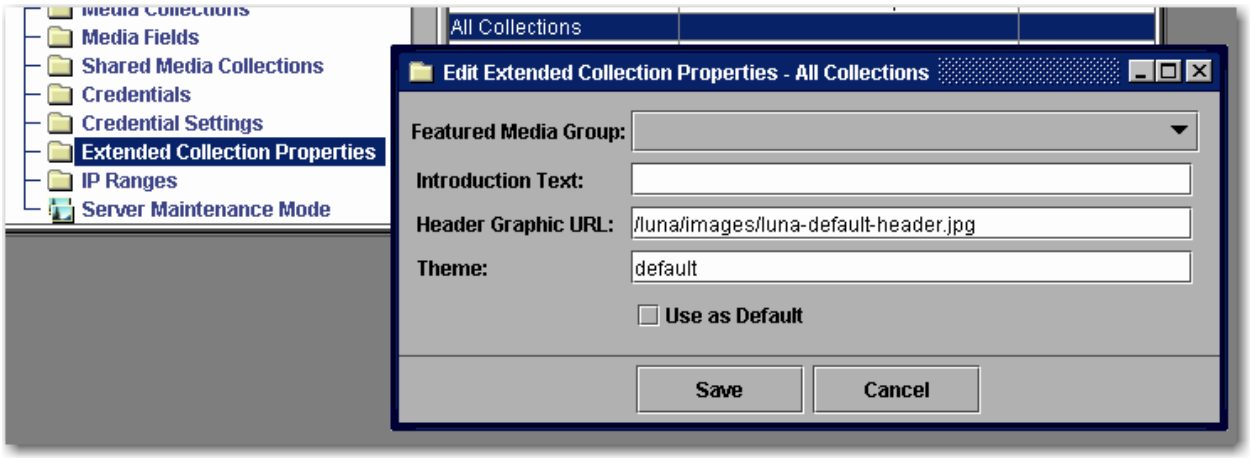


This is a very important graphic and will be used to give identity to your institution. Many times default access will be to more than one collection and you will want to have your institution's identity defined here.

All Collections Feature Media Group

As of LUNA 6.2.2 you can set a Featured Media Group for the "All Collections" option. This is a special Collection ID in the Extended Collection Properties section of the LUNA Manager.

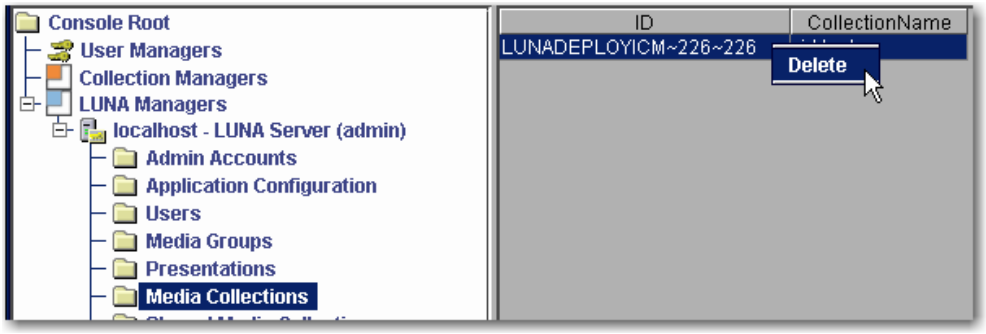
This option will show this group in the featured Media panel of the Collections page



Deleting a Collection from LUNA

Deleting a Collection from LUNA is done in a few steps.

1. Delete the collection from the Admin Tools.



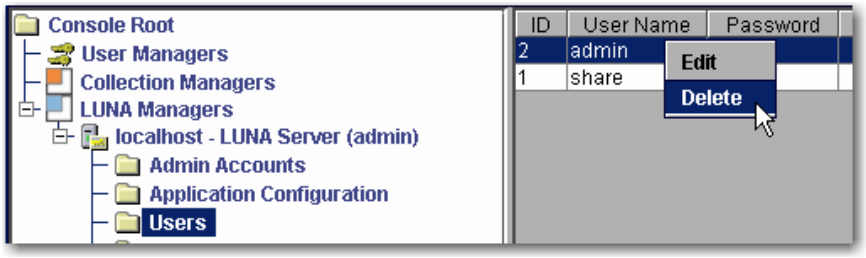
2. Run the Merge and Load task
    a. This will remove the content from the search Index.
    b. Your LUNA system will not work properly unless you do this step.
3. Restart your Jboss or tomcat service

Deleting a User from LUNA

Deleting a User from LUNA is done the following way.

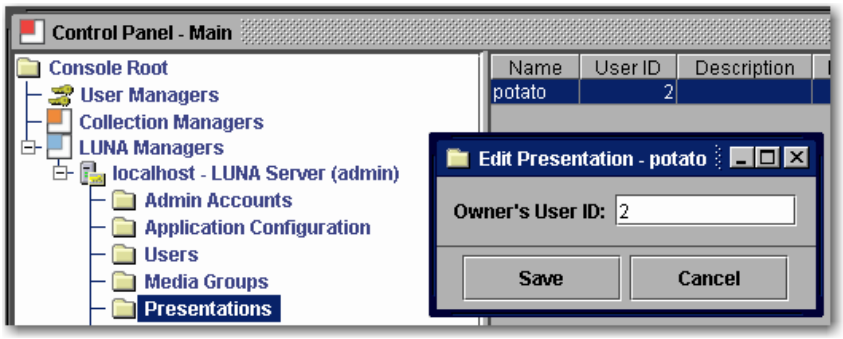
NOTE: Before you delete the user, Note the ID associated with that user.

Select the User in the Admin Tools and right click and select delete.



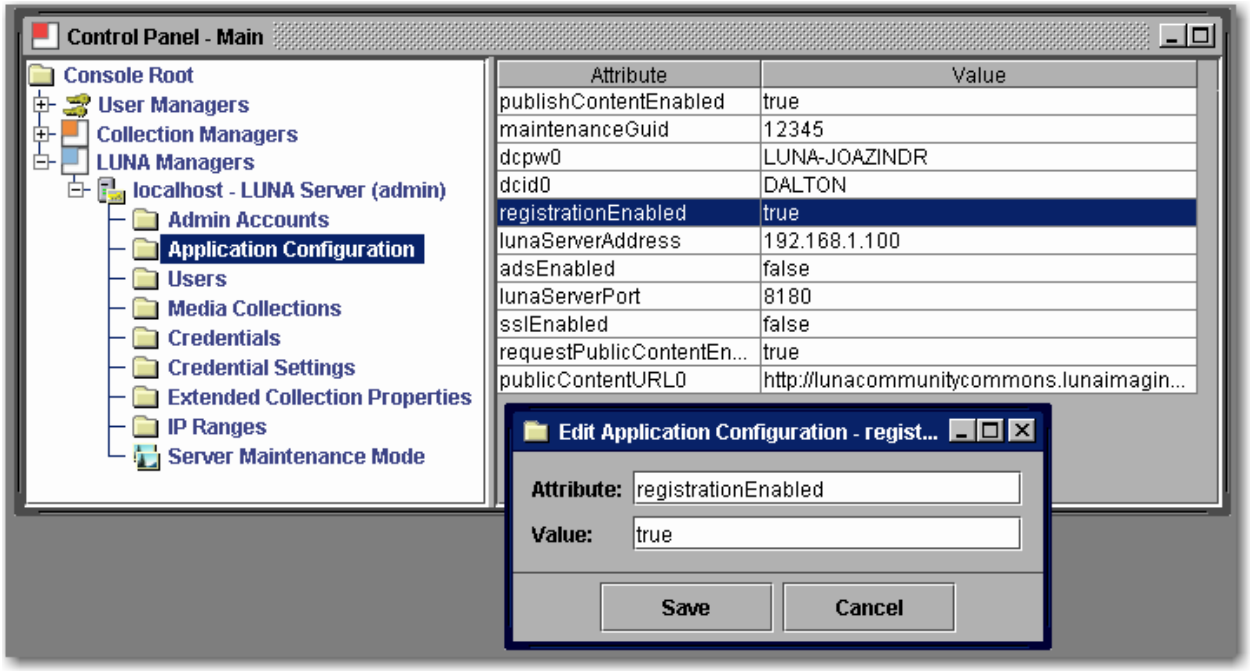
Once you delete the user, All Media Groups and Presentations that the user owned will be orphaned.

Open the Presentation or Media Group folder in the Admin Tools and locate any item that was owned by the User you just deleted and change the ID to another User's ID who you would like to pass ownership to. After you finish, run the Maintenance Mode twice.



Application Configuration

Application Configuration allows you to set various characteristics of LUNA.

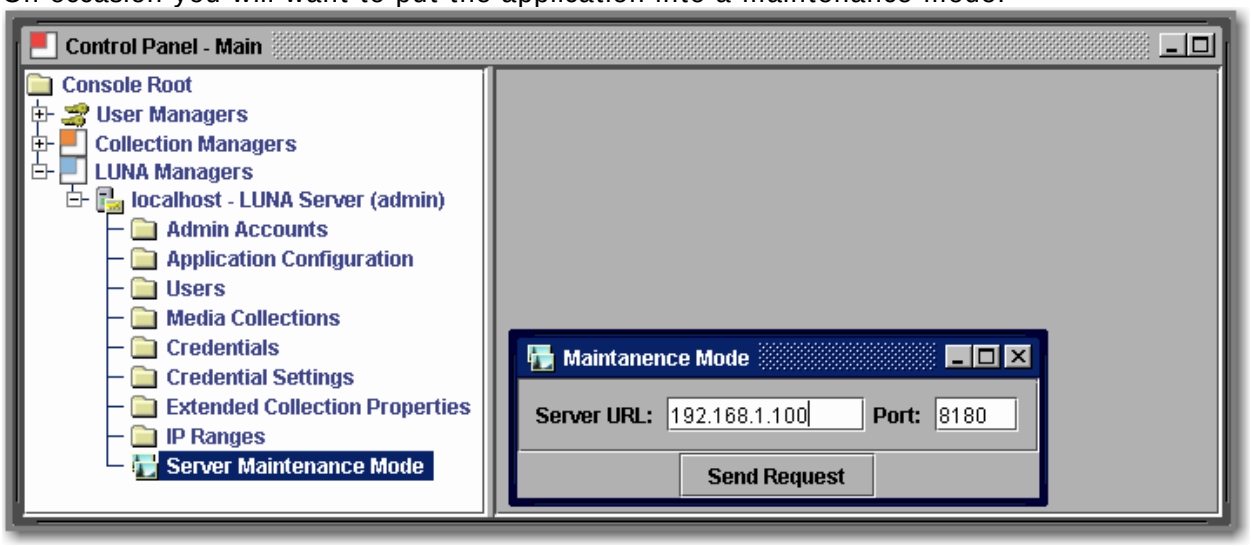


During the installation process these settings were defined. If you need to make modifications to any of these properties, be aware that it will affect how LUNA functions. If you are unsure of what a particular setting is for, do not change it without first contacting Luna support for an explanation of the setting.

Making any change most likely will require the application to be restarted.

Maintenance Mode

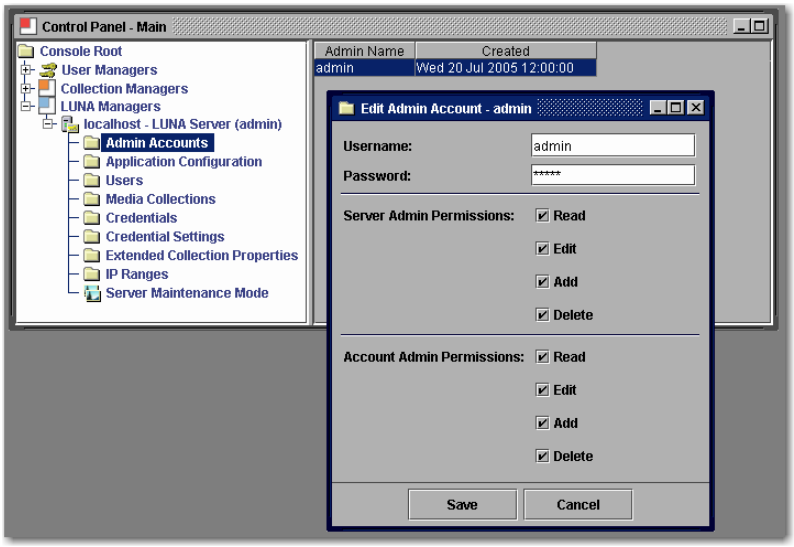
On occasion you will want to put the application into a maintenance mode.



Maintenance Mode can also be used to reload User and Credential Settings. To trigger Maintenance Mode send one request, then send a second to take the system out of Maintenance Mode and reload your settings.

Admin Accounts

Used to control access to the Admin Tools console.



Like in User Manager and Collection Manager sections of the Administrator Tools, The LUNA Manager also has Admin Accounts. These accounts grant access to the Admin Tools.
Server Admin Permissions grants access to perform actions in the Admin Tools.
Account Admin Permissions grants access to create and manage Admin Accounts.

Virtual Collections in LUNA

Introduction

This section describes how to prepare your system to support Insight Virtual Collections in LUNA.

You will need to update your Insight Collection database by running a script that changes a Primary Key on the IRGROUPS table of your Insight Collection Manager database.

You will then need to use the Administrator Tools (6.0.1+) to prepare the virtual collection for LUNA as described in this section.

Once you have completed this preparation, you can publish your virtual collections the same way you publish other collections to LUNA.

Updating your Insight Database

Warning!!! Before making any database changes, always backup your current database.

The first step is to change the Primary key of the IRGROUPS table in the Insight database that contains your virtual collection.

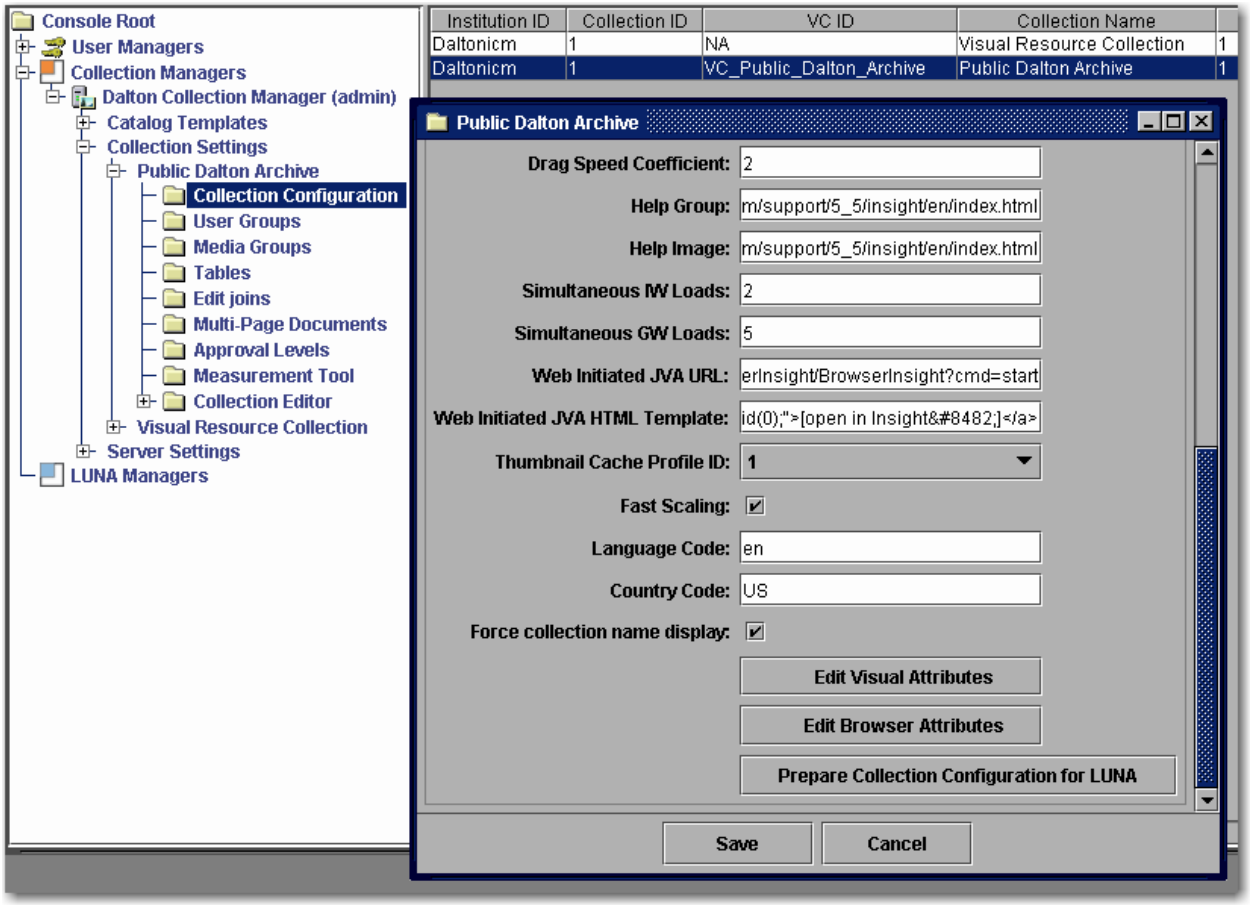
There are two ways you can do this.

1. If you are familiar with how to change primary keys in your database, you can change the Primary Key on the table IRGROUPS from (GROUPID) to (UNIQUECOLLECTIONID,GROUPID,VCID)

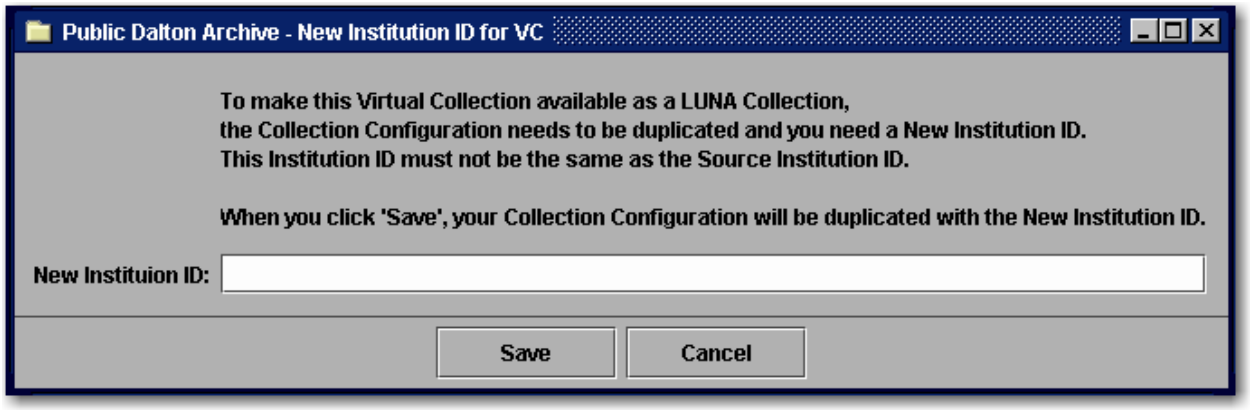
2. Use one of following database scripts links to update your IRGROUPS table
    - For MySQL
    - For MSSQL
    - For Oracle

Preparing your Virtual Collection with the Administrator Tools

Using your Administrator Tools (6.0.1+) open your collection configuration panel for the Virtual Collection you would like to make available in LUNA. Scroll to the bottom of the panel. You will see a button that says "**Prepare Collection Configuration for LUNA**". Select this button. (This button will only show for virtual collections).



Once you have selected the **Prepare Collection Configuration for LUNA** button, you will need to set a New Institution ID for the collection. Make sure this is different than the Source Institution ID.

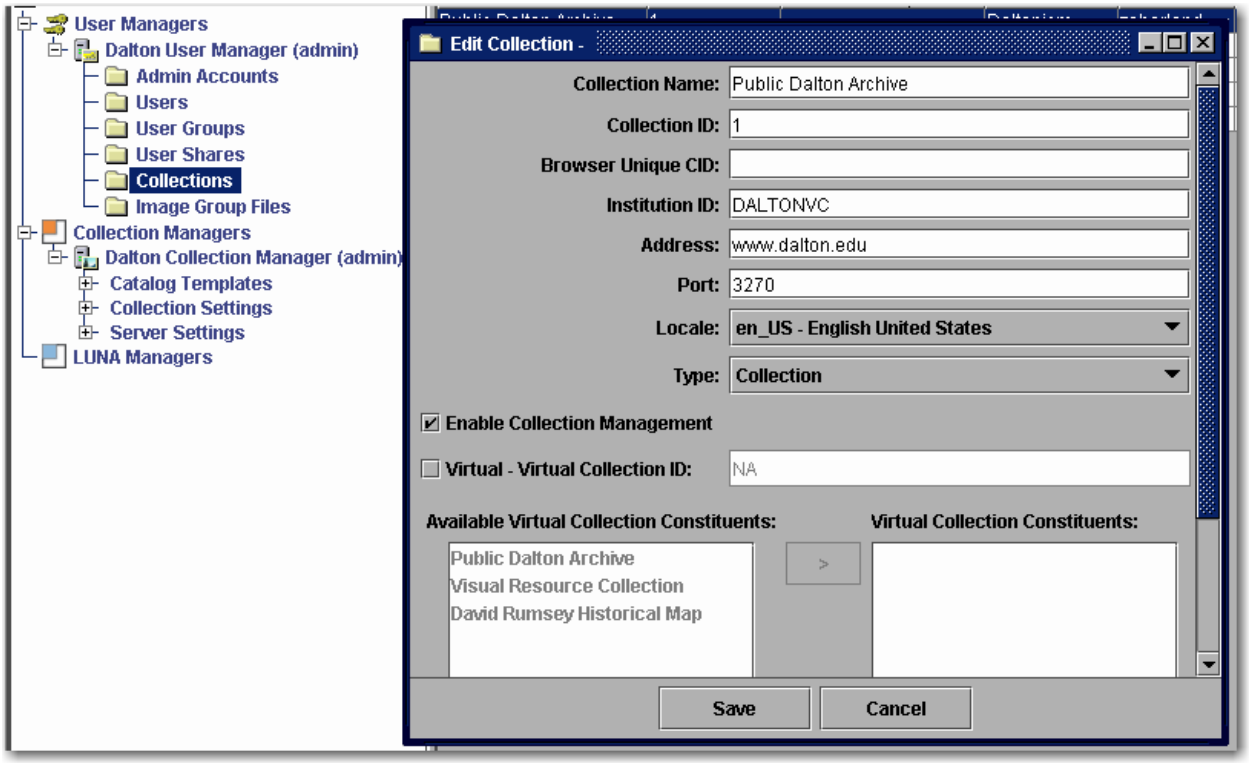


As described in the previous panel, your collection entry will be duplicated and you will now have two entries for your Virtual collection. The original and now the new one with the New Institution ID and the VC ID of NA.

Institution ID	Collection ID	VC ID	Collection Name
Daltonicm	1	NA	Visual Resource Collection
DALTONVC	1	NA	Public Dalton Archive
Daltonicm	1	VC_Public_Dalton_Archive	Public Dalton Archive

Next you will need to add an additional Collection entry to the User Manager to access the Virtual collection in LUNA.

Under the Collections section of the User Manager, create a new entry and fill in Collection Name, Collection ID, your new Institution ID Server Address and port number. Then save your Collection entry.



Next you will need to give a Studio privileged user access to this collection.
For instructions on this, follow the “Granting Access to Insight Studio” in the “User’s Guide to Basic Collection Building”.

Once a user has access to this virtual collection in Studio, they can Publish the collection into LUNA just like any non-virtual collection.

LUNA Commons

Introduction

LUNA Commons is a new source for finding valuable, educational content from digital collections built in the Insight Software from **Luna Imaging, Inc**. and presented in Insight's dynamic new LUNA browser. To see what is available, take a look at www.lunacommons.org.

Adding LUNA Commons Content to your LUNA

Adding all the LUNA Commons content is very easy once you have configured your LUNA version to receive the content. This is covered in the installation section of this manual.

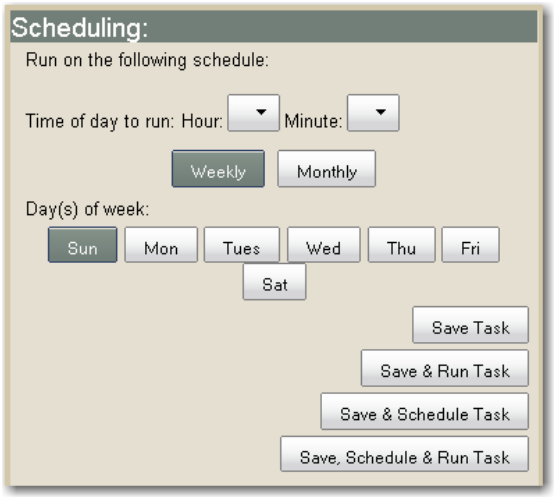
Once you have upgraded to 6.2+ you will have a new task in the LUNA Publisher.

Notice the new task called Get LUNA Public Content.

Select the Modify button

You have 4 options when completing this task

- Save Task (will only save the task)
- Save and Run Task (will save and run the task now)
- Save and Schedule Task (will save then execute the task on a schedule)
- Save, Schedule and Run Task



Next, Use Credentials to assign access to these collections as you would any other collection or you can select “Public Content Allowed” to assign all the Public collections.

Sharing your Content with the LUNA Commons

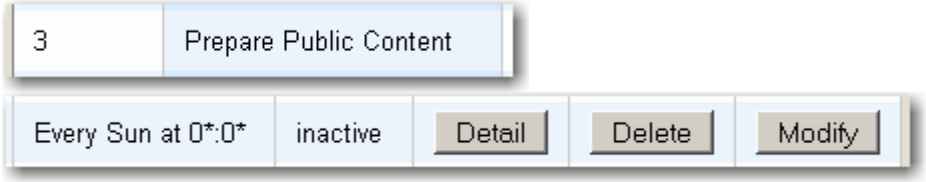
As our parents told us sharing is a good thing. We have made it easy to share selected collections with the world and other institutions. Make sure your server is setup to share collections by following the Installation Instructions.

During the installation, you were asked to create an account. This account was assigned the Content Distribution credential (4). To specify which collections you would like to share, assign them to the Content Distribution credential.

Once you have assigned the collections, you will need to run the Maintenance Mode twice.

Next, you will need to run a task in the LUNA Publisher. Open the LUNA Publisher and choose Task List

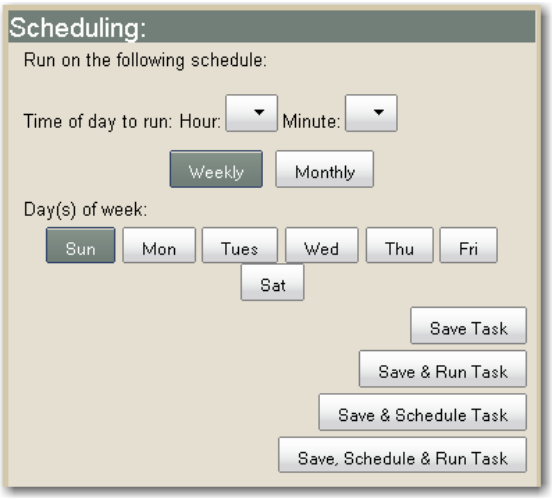
Modify Prepare Public Content



Decide how often you want to update your shared content.

You have 4 options when completing this task

- Save Task (will only save the task)
- Save and Run Task (will save and run the task now)
- Save and Schedule Task (will save then execute the task on a schedule)
- Save, Schedule and Run Task



Once the task completes, the LUNA Commons server will try to retrieve your content on its next scheduled run. This may vary and usually it happens about once a week.

LUNA eCommerce

Introduction

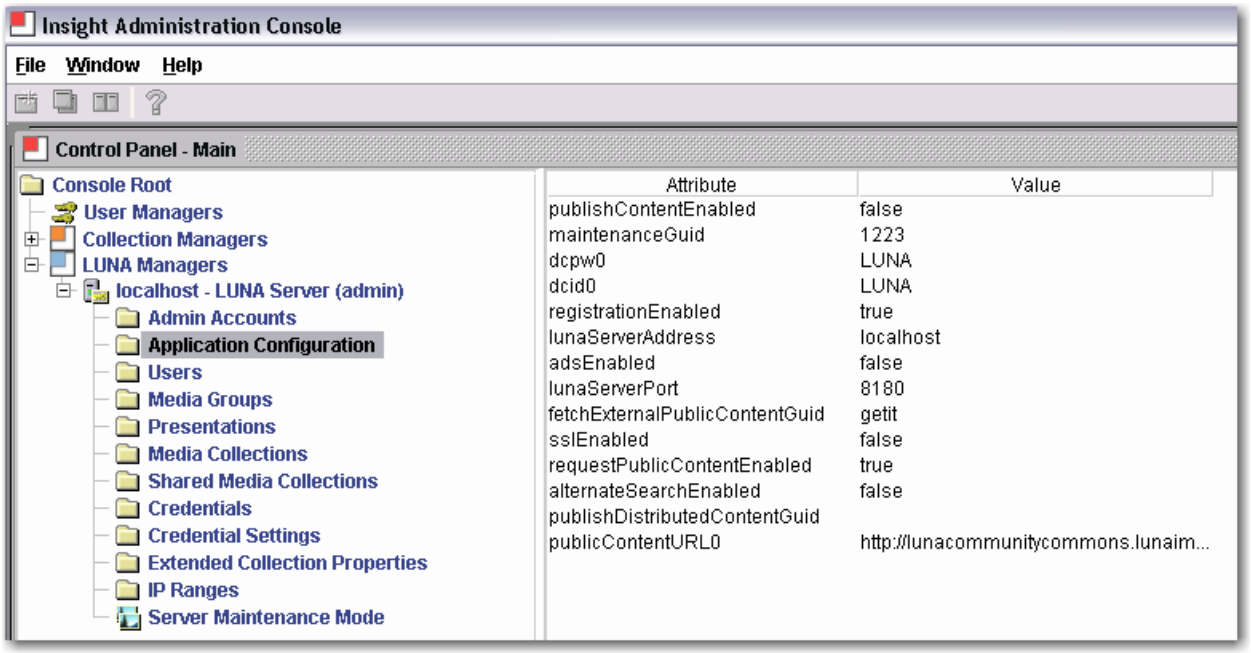
With the introduction of 6.2.2, LUNA has incorporated a way to support the purchase of images through 3rd party vendors. The interface and setup were designed to be generic with the specific intent to work with Pictopia.

If you are interested in establishing a partnership with Pictopia, email a Program Manager within their Program Services department at partners@pictopia.com.

The buy button is located on the detail page as shown below

How to set it up

Each collection can be setup to allow the Buy Print button.
The configuration is setup in the
Administrator tools>LUNA Managers>YourServerName>Application Configuration



Once you are in here, you will need to add the following settings for each collection that you want to add the Buy Print feature to.

The following table shows the Attributes and the Values need for Pictopia.

ATTRIBUTE	VALUE	Description
buyLinkBaseUrl	http://gallery.pictopia.com/davidrumsey/e/?	Base URL to the service (Pictopia)
buyLinkCollectionId0	RUMSEY~8~1	Attribute CollectionID Part 0
buyLinkCollectionId1	RUMSEY~8~1	Attribute CollectionID Part 1
buyLinkCollectionId2	RUMSEY~8~1	Attribute CollectionID Part 2
buyLinkCollectionId3	RUMSEY~8~1	Attribute CollectionID Part 3
buyLinkParamName0	photo_name	Link Parameter Part 0
buyLinkParamName1	title	Link Parameter Part 1
buyLinkParamName2	fs_url	Link Parameter Part 2
buyLinkParamName3	t_url	Link Parameter Part 3
buyLinkParamSrcField0	Image No	Link Parameter value Source Part 0
buyLinkParamSrcField1	displayTitle	Link Parameter value Source Part 1
buyLinkParamSrcField2	urlSize8	Link Parameter value Source Part 2
buyLinkParamSrcField3	urlSize4	Link Parameter value Source Part 3

The general concept is that when you click on the Buy Print link a new page is launched to the URL defined for the collection and the parameters specified.

buyLinkBaseUrl + buyLinkParamName0 = buyLinkParamSrcField0

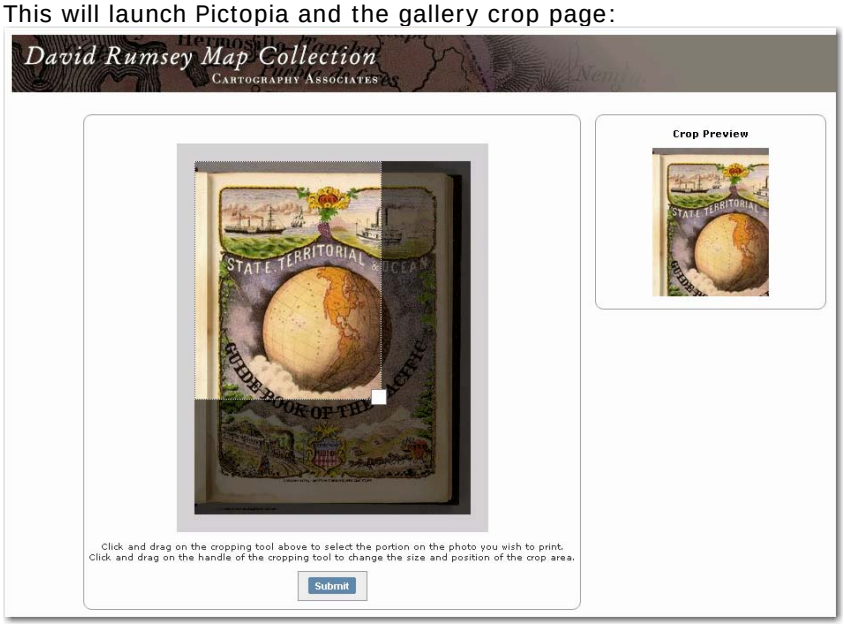
This is extended for each Parameter. For example here are the first two parameters that are passed

http://gallery.pictopia.com/davidrumsey/e/?photo_name=Flowers&title=The%20Rose

And here is a real, full link to Pictopia wth all parameter attached

http://gallery.pictopia.com/davidrumsey/e/?photo_name=2544A&title=%28Illustrated+Title+Page+to%29+State%2C+Territorial+and+Ocean+Guide+Book+of+the+Pacific%3A+Containing+The+Time+and+Distance+Tables+...+on+or+Connecting+with+the+Pacific+Coast+and+the+Interior+...+To+Which+Are+Added+Nine+Large+and+Reliable+Maps+Showing+Principal+Towns%2C+Routes+of+Communication%2C+etc.+San+Francisco%3A+Published+Semi-Annually+by+Sterling+M.+Holdredge.+...+1866.&fs_url=http%3A%2F%2Frumseysid.lunaimaging.com%2Fmrsid%2Fbin%2Fimage_jpeg.pl%3Fclient%3DRumsey%26image%3DSIDS%2FD0005%2F2544A.sid%26level%3D0%26x%3D1276%26y%3D1626%26width%3D2553%26height%3D3253%3Fuserid%3D15%3Fusername%3Dlunaadmin%3Fresolution%3D6%3Fservertype%3DJVA%3Fcid%3D8%3Fiid%3DRUMSEY%3Fvcid%3DNA%3Fusergroup%3DRumsey3x%3Fprofileid%3D13&t_url=http%3A%2F%2Fwww.davidrumsey.com%2Frumsey%2FSize4%2FD0005%2F00054032.jpg%3Fuserid%3D15%26username%3Dlunaadmin%26resolution%3D4%26servertype%3DJVA%26cid%3D8%26iid%3DRUMSEY%26vcid%3DNA%26usergroup%3DRumsey3x%26profileid%3D13

This will launch Pictopia and the gallery crop page:



And the subsequent buy page:

The final area you need to understand is how to access the data contained in LUNA. This will allow you to extract data and image information to pass to the parameters in the URL. The following is meant as an example and references the table above.

In the Pictopia example there are four values passed.

Unique ID of the image ("Image No" is a data field in the David Rumsey Map Collection)

- photo_name = Image No

Title of the image (displayTitle is the title that is selected in the LUNA Publishing process)

- title = displayTitle

Full size URL (Setting this to urlSize8 will pass the largest image URL to Pictopia)

- fs_url = urlSize8

Thumbnail URL (Size4 Image URL from LUNA to the Pictopia Crop tool. 1536 pixels Long Side)

- t_url = urlSize4

Books in LUNA: The new BookReader

Introduction

The BookReader integrates the discovery and display of compound objects such as books, manuscripts, and newspapers in LUNA. LUNA's new BookReader allows users to:

- search text within a book
- turn its pages
- zoom into the text
- add individual pages to a Media Group
- view book in Full View
- view book pages as thumbnails

Creating BookReader objects consists of compiling a text-searchable PDF, a folder of images, a converted XML file and a book.properties file- all explained in more detail in the following pages.

In addition to their descriptive data, BookReader objects can be indexed for full text searching. If you haven't already OCR'd the contents of the PDF, it cannot be indexed for searching as a BookReader object in LUNA. **If it isn't necessary for your BookReader object to be indexed for full text search, you can still create and upload a BookReader object by skipping the step regarding converting the PDF to HTML.**

To convert your scanned document into a text-searchable PDF file there are a number of OCR products to select from, such as OmniPage Pro and ABBYY FineReader. Adobe Acrobat Professional has OCR capabilities as well.

The LUNA BookReader technology is based on the Internet Archive's BookReader format and allows you to add books into LUNA collections using Insight Studio two different ways:

Option 1: Create and Upload New BookReader Objects

Option 2: Represent Publicly Available BookReader Objects

Either way, you'll be able to work with your BookReader objects as you do all other media in LUNA.

Getting Started

BookReader objects can be added to an existing collection, or can be the basis for a new collection. Either way, before you start building and importing these BookReader objects you need to first have a collection to upload these objects to.

If you are adding to an existing collection and have a cataloged CSV data file:

1. Open Studio, select a collection, and select the "Import Data" task from the Main Task Menu.
2. Upload the CSV file.

If you're creating a new collection, follow the instructions from User's Guide to Basic Collection Building on how to build a collection in Studio. These steps will include uploading the CSV file.

Now that you have a collection to add BookReader objects to you can follow Option 1 or 2.

Option 1: Create and Upload New BookReader Objects

There are 2 major steps to this option:

A. Preparing the BookReader objects for upload to Studio
You'll create a top level directory containing:

- an images sub directory
- a book.properties file
- a text-searchable PDF*
- an XML file converted from the PDF*

*these are optional, and applicable only if your BookReader object will have full text search capabilities.

B. Uploading BookReader objects to Studio
Once you've prepared all your BookReader objects, you can then upload them to Studio and publish them to LUNA.

A. Preparing the BookReader objects for upload to Studio

1. Create a directory (folder) for each book

Create a top level directory (or folder) for each book you wish to publish. The folder will contain the components needed to create and upload each book to LUNA through Studio.

Each of these top level directories (or folders) represents one book. You need to perform steps 1-6 for each BookObject you wish to create.

> Note: Make sure the directory where your book files are placed contain no spaces or special characters. Use _ (underscore) to represent a space. For example: ISBN_1587266032_Great_Expectations

2. Prepare images

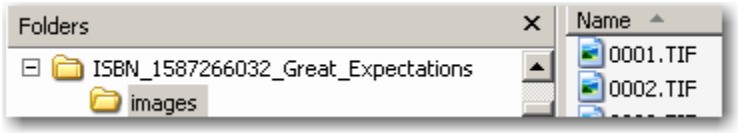
Prepare all the images that will make up your book. An image represents a page. JPEG and TIFF files are supported and must be numbered sequentially in the following manner, starting with 0001. We understand that you may have already named your files with unique identifiers; we propose that you simply copy your files into a new folder to apply the sequential numeric value as described in this section so that a BookReader object can be created. The file names must be 4 digits long and have leading 0's:

0001.tif
0002.tif
0003.tif

Note: If you want your BookReader object to have full text search capabilities the images in the folder must match the total number of pages, and the exact sequence of the pages in the text-searchable PDF.

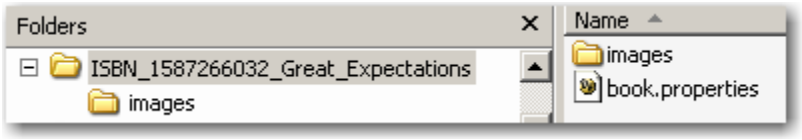
3. Place images in sub-directory called "images"

Place image files in a sub-directory (or folder) called **images** within the top level directory created in step 1. For example:



4. Create a text file called book.properties

Create a text file called "book.properties" and place it in the top level directory. When you save the book.properties file there should be no extension appended to it.



In this book.properties file include two properties:

```
BookIdentifier = ISBN_1587266032_Great_Expectations
ThumbnailImage =  0005
```

Wherein "BookIdentifier" will be the name of the folder created in step 1, and "ThumbnailImage" indicates which image file will be used as the thumbnail to represent the book in LUNA. Do NOT include the file extension here. Indicate the image with the four digit number. For example: 0005

Note: More than one book can have the same BookIdentifier as long as it is not processed in the same batch.

5. Convert your text-searchable PDF into an XML file

If your PDF has not been OCR'd and you do not need the contents of the PDF to be searchable, skip this step. To convert your text-searchable PDF into an XML file that contains all the data and word locations in the book Download the utility called PDFtoXML and install it. (This utility is only available in a Windows format)

This utility makes use of the open source utility pdftohtml but is not the same thing.

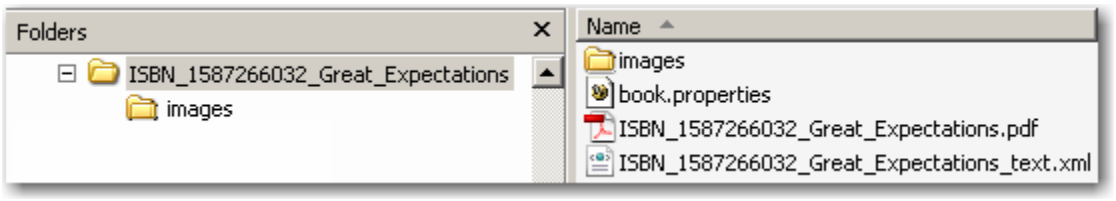
After you've installed the utility:

a. Copy and paste the PDF into the PDF folder. (located in the install directory of PDFtoXML)
b. Click on "Convert_PDF_to_XML.bat".
c. Open the XML folder, and grab the newly created XML file.

Note: Do not edit the name of the newly created XML file. It will automatically add "_text" to the file name.

Each time you perform this conversion be sure that both the PDF and the XML folders are empty.

6. Finalize directory for publishing BookReader objects to LUNA
Place your text-searchable PDF file and the optional (only needed for Full Text Search) XML document into the top level directory of the book.



Now is a good time to review the contents of your directory. It should contain ONLY the following:

- an images sub directory containing sequential files beginning with 0001.jpg or 0001.tif.
- a book.properties file containing BookIdentifier (named exactly the same as the directory) and ThumbnailImage.
- a text-searchable PDF*
- an XML file converted from the PDF (named exactly as the PDFtoXML utility named it). *

*these are optional, and applicable only if your BookReader object will have full text search capabilities.

You're now ready to move on to Step B below and upload these BookReader objects to Studio.

B. Uploading BookReader objects to Studio

1. Select a collection, select "Import Book"
Open Studio and select the collection you'll upload these BookReader objects to.

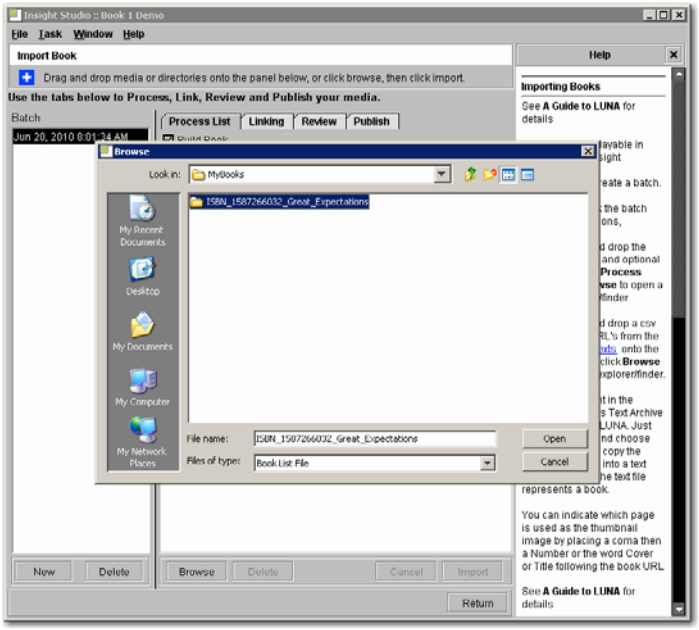
Select the "Import Book" task from the Studio Main Task Menu. The steps that follow are nearly identical to processing other forms of media in Insight. The main difference is that you are selecting the top level book directory (folder) instead of individual files to process.

2. Select BookReader objects for import
Click **New** to create a new batch. A batch can contain as many books as you like. Each book is represented by the folder you created in Step 1 of **Creating a BookReader Object.**

The batch in the left panel will show the date and time it was created. You must create a batch or select and existing batch before adding content.

Under the Process List tab make sure to check the **Build Book** box:

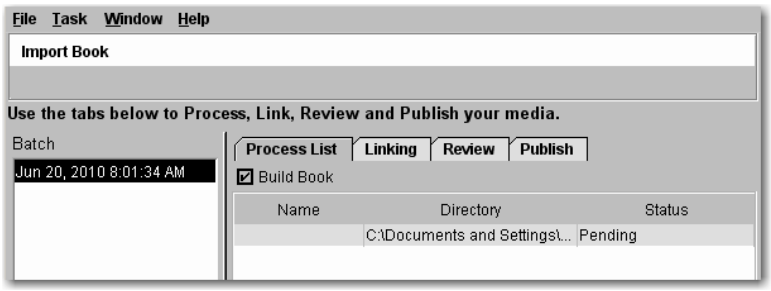
Either drag each folder containing the book components from where they are stored on your file system and drop them onto the Process List panel to the right of the Batch panel; or find the folders containing each book by clicking **Browse** and importing them from your file system to the Process List.



3. Import BookReader objects

Once the Process List contains the books you wish to import, click **Import**. A status message will appear to indicate Pending, Processing, Uploading, or Complete for each book. When the entire batch has been processed completely, **Finished Importing Media** will appear at the top.

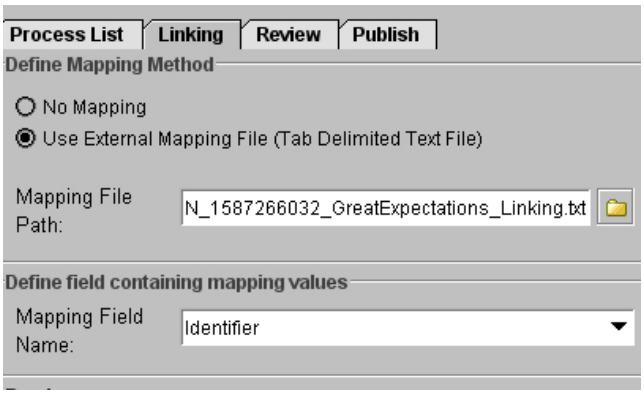
Since each book may contain many images, this import process may take while to complete. If your book contains 200 pages it would take the same amount of time it takes to process 200 images.



4. Add a Linking file

This step ensures your cataloged data will be correctly linked to your BookReader objects. If you did not upload a cataloged CSV file for these BookReader objects skip this step and manually link your records to BookReader objects using Inscribe.

Select the batch that you want to apply the links to. Click on the Linking tab and select “Use External Mapping File”.



This linking file is a simple text file containing two columns. The first column must be the same as what you used for BookIdentifier in the book.properties file. The second column is the value in the database you are linking to- what you will select from the Mapping Field Name pull down menu (for example: Identifier; Title; etc).

After uploading the linking file, select the Mapping Field Name.

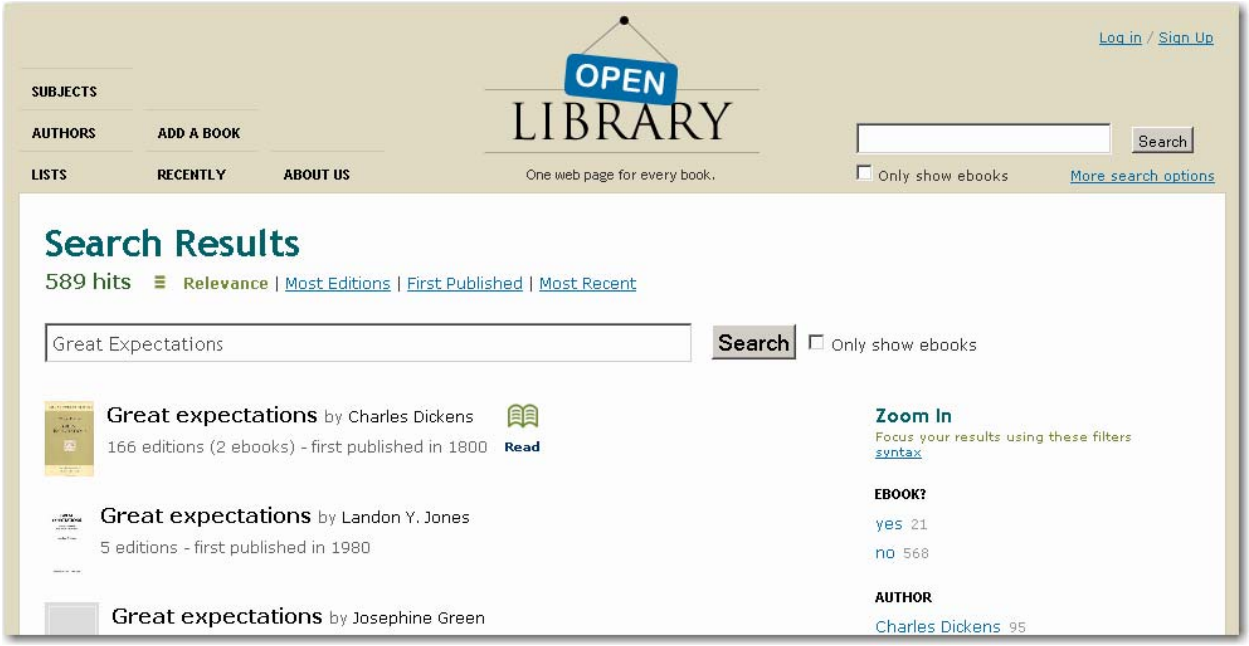
5. Publish BookReader objects
Proceed to the Publish tab. Select “All unpublished Media” and then “Apply Changes”.

Congratulations, you’ve now created and uploaded BookReader objects to Insight. To view these objects in LUNA proceed to the steps involved in Publishing a Collection to LUNA. Once you’ve completed the steps involved in publishing a new collection to LUNA, or updating an existing collection, your users will then see the BookReader objects in LUNA.

Option 2: Represent Publicly Available BookReader Objects

You can add your books to the Open Library and/or the Internet Archive and also access them in LUNA. Just follow the instructions on the Open Library site to add books or find existing books in the Open Library and then follow the simple steps below to add them to your LUNA collection.

1. Find books to upload
Locate the books you want to import into LUNA in the Open Library and/or Internet Archive. Choose “Read Online” by clicking the Read icon next to a book. (Note: if a Read icon does not appear next to the book in the Open Library search results, the book is not available to add.)

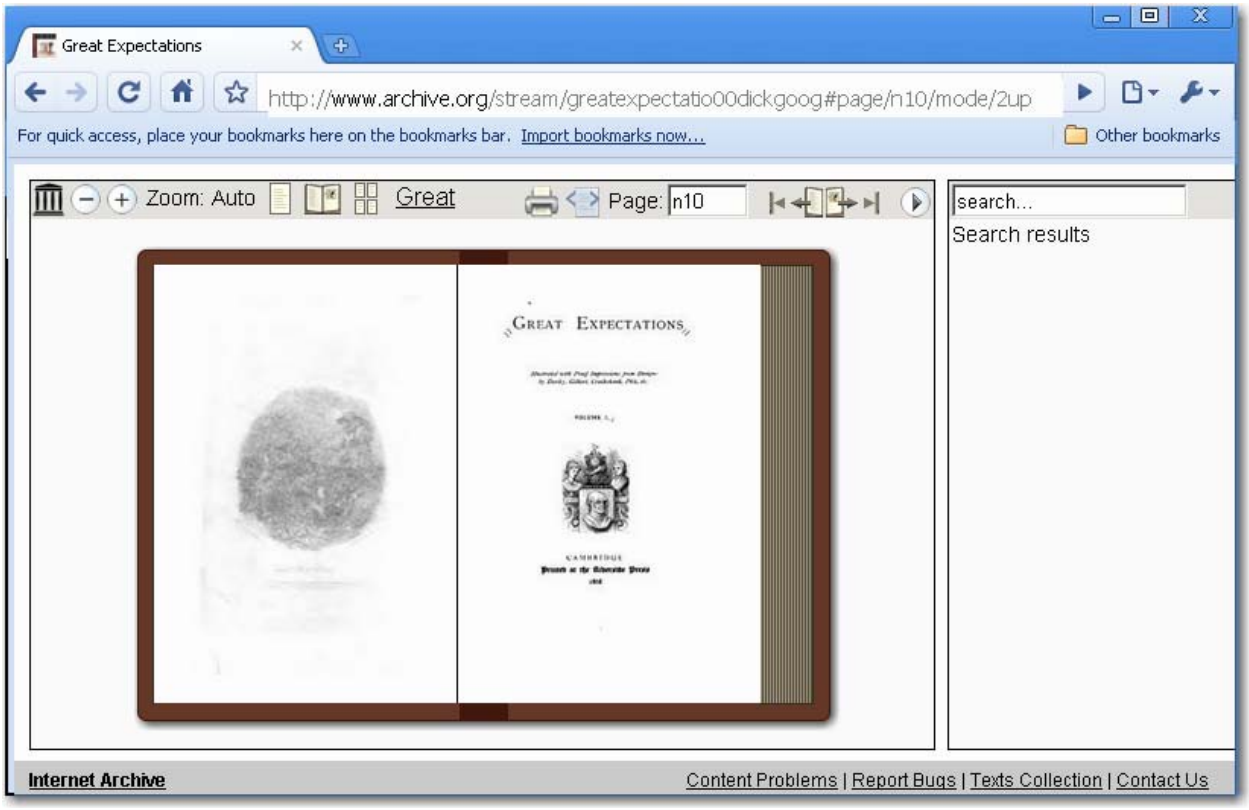


2. Create a spreadsheet

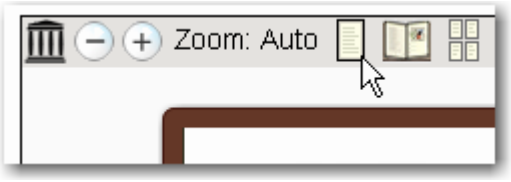
This spreadsheet will contain only two columns. The first row MUST contain text, so label Column 1 “URL”, and Column 2 “Page Number” for example.

	1	2
1	URL	Page Number
2	http://www.archive.org/stream/greatexpectatio00dickgoog#page/n10/mode/2up	12
3		
4		

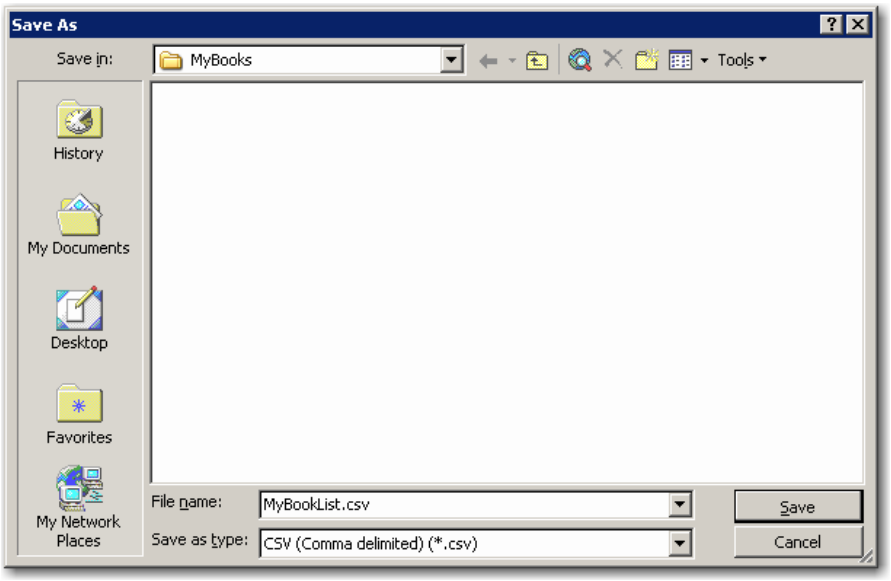
Copy the URL for each book and paste into the first column of the spreadsheet.



Find the thumbnail image number by viewing the book in One-Page view mode, and count until you've reached the image you want. This thumbnail image number is the image you want to represent the book in the Thumbnail View in LUNA, and will be the number you will enter in column 2 of your spreadsheet.



For each book, add a new line in your spreadsheet. Save your spreadsheet as a CSV (Comma Separated Values) file.



Note: Alternatively, instead of creating a spreadsheet and converting it to a CSV file, you can also just create a text file with new lines for each additional book and image number. After the URL to the book, include a comma and then page number you want to be the thumbnail image.

Example:
http://www.archive.org/stream/greatexpectatio00dickgoog#page/n10/mode/2up,12

3. Load the spreadsheet into Studio
Open Studio and select the collection you'll add the books to. Select the "Import Book" task from the Studio Main Task Menu.

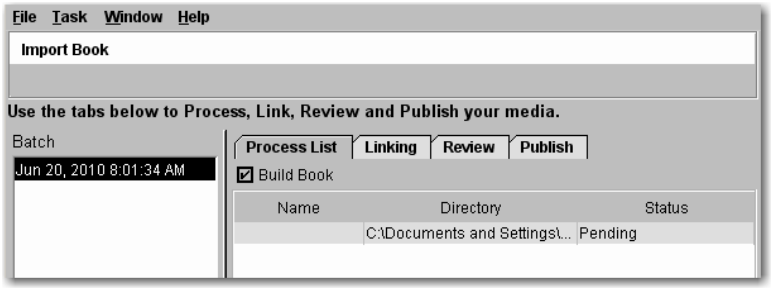
Click **New** to create a new batch. The new batch will *just* contain the spreadsheet created in step 2. The batch in the left panel will show the date and time it was created. If you do not create a new batch, a batch will be automatically generated whenever you add content to the Process List.

Under the Process List tab make sure to leave the **Build Book** box unchecked.

Either drag each folder containing the book components from where they are stored on your file system and drop them onto the Process List panel to the right of the Batch panel; or find the folders containing each book by clicking **Browse** and importing them from your file system to the Process List.

4. Import the spreadsheet

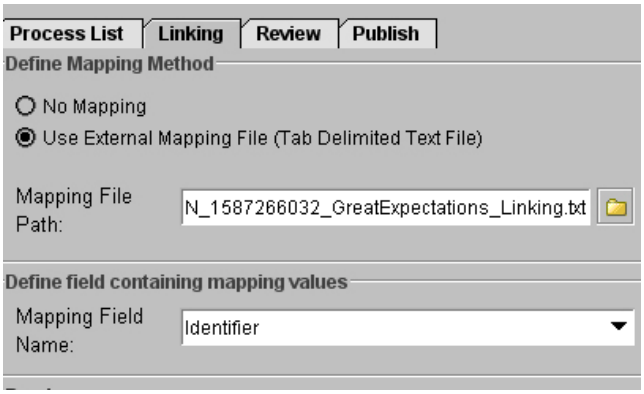
Once the Process List contains the books you wish to import, click **Import**. A status message will appear to indicate Pending, Processing, Uploading, or Complete for each book. When the entire batch has been processed completely, **Finished Importing Media** will appear at the top.



5. Add a Linking file

This step ensures your cataloged data will be correctly linked to your BookReader objects. If you did not upload a cataloged CSV file for these BookReader objects skip this step and manually link your records to BookReader objects using Inscribe.

Select the batch that you want to apply the links to. Click on the Linking tab and select “Use External Mapping File”.



This linking file is a simple text file containing two columns. The first column must be the unique identifier or URL for each book.

The unique identifier is part of the URL. In this example URL **http://www.archive.org/stream/greatexpectation03dick#page/n3/mode/2up** the unique identifier is **greatexpectation03dick**.

The second column is the value in the database you are linking to- what you will select from the Mapping Field Name pull down menu (for example: Identifier; Title; etc).

After uploading the linking file, select the Mapping Field Name.

6. Publish BookReader objects

Proceed to the Publish tab. Select “All unpublished Media” and then “Apply Changes”.

Congratulations, you’ve now created and uploaded BookReader objects to Insight. To view these objects in LUNA proceed to the steps involved in Publishing a Collection to LUNA. Once you’ve completed the steps involved in publishing a new collection to LUNA, or updating an existing collection, your users will now see the BookReader objects in LUNA.

OAI-PMH in LUNA

Introduction

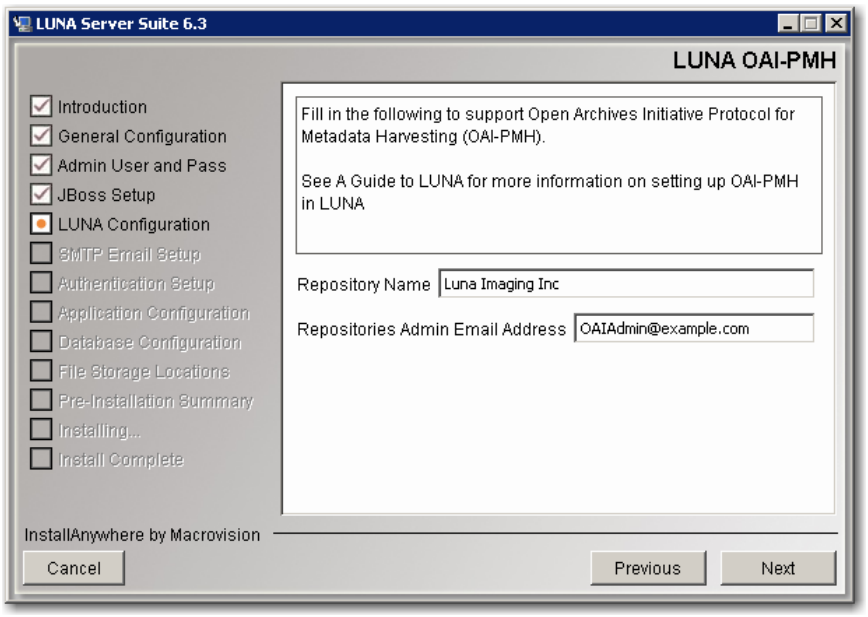
With the introduction of 6.3 LUNA is compliant with OAI-PMH (Open Archives Initiative Protocol for Metadata Harvesting). To make use of this new feature you will need to prepare your collections.

- Upgrade LUNA to 6.3 and enter your Repository Name and email account or use the Administrator Tools to modify your existing values.
- Publish or Re-publish your collection to LUNA.
- Map your collection's fields to Dublin Core using the LUNA Manager of the Administrator Tools.
- Make sure your collection is publicly accessible.
- Register your LUNA OAI-PMH URL with a harvester.

Prepare LUNA and your collection for OAI-PMH

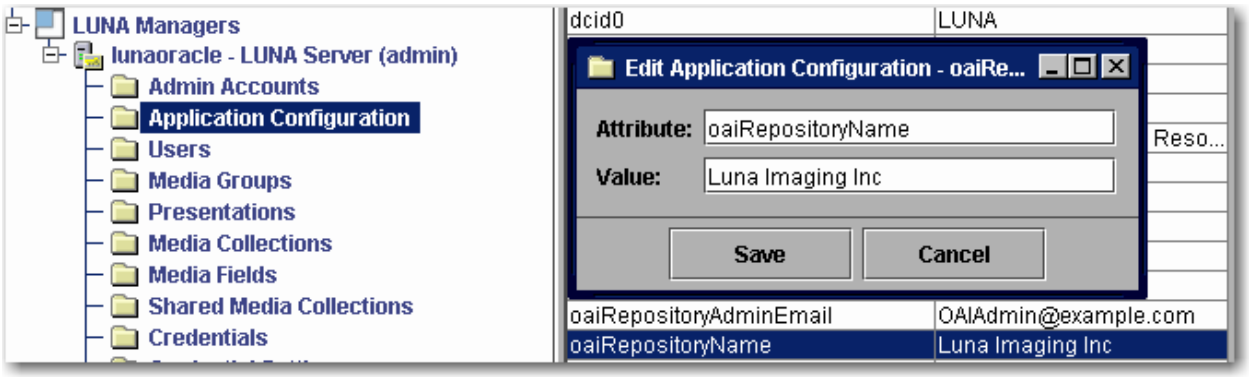
Set your Repository Name and admin email in LUNA

During the install or upgrade process you are asked for the Repository Name and an Admin email account. These two items are required for proper OAI compliance.



If you have already upgraded to 6.3+ and need to modify this information, you can use the Admin Tools to change these properties.

In the Application Configuration section of the LUNA Manager, you can edit the oaiRepositoryName and the oaiRepositoryAdminEmail attributes. If you make the changes here, you will need to restart the LUNA service.

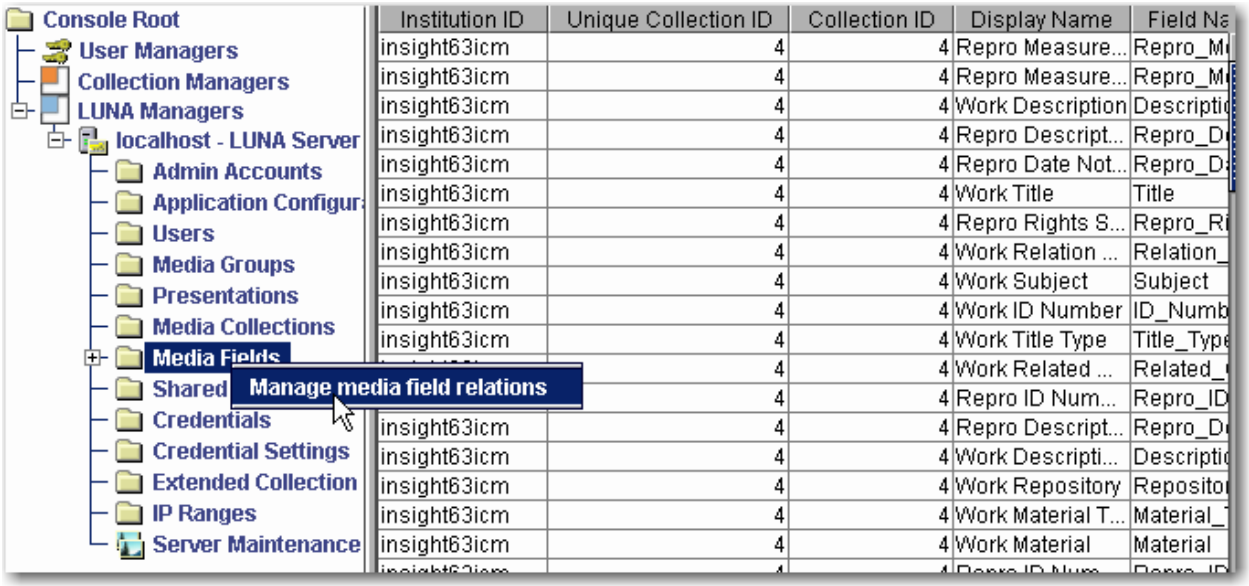


Publish your collection to LUNA

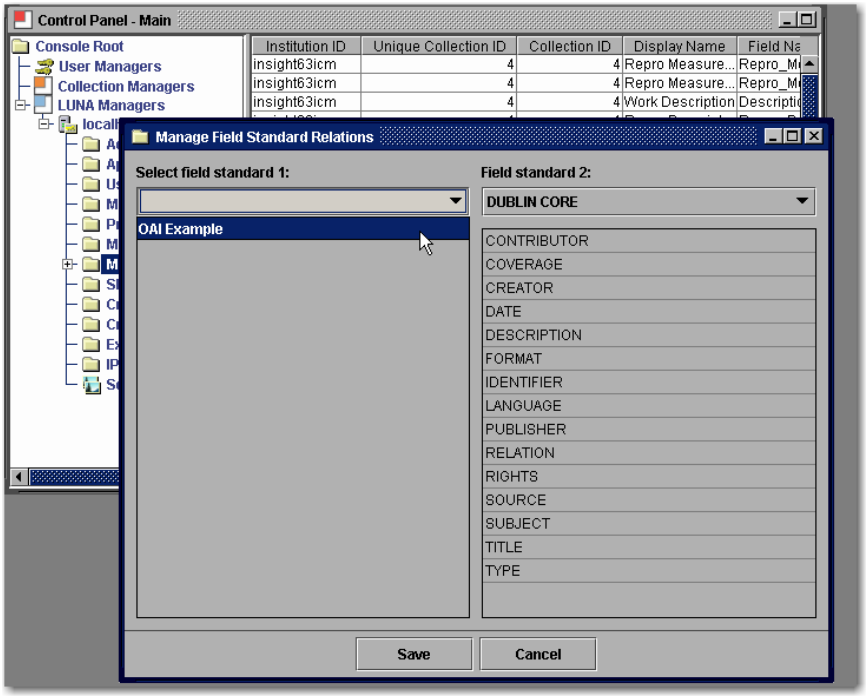
To ready your collections for OAI-PMH you must first publish or republish your collection to LUNA. This will populate the LUNA Admin Tools with all the fields from your source collection and allow you to continue to the next step.

Map your collection's fields to Dublin core

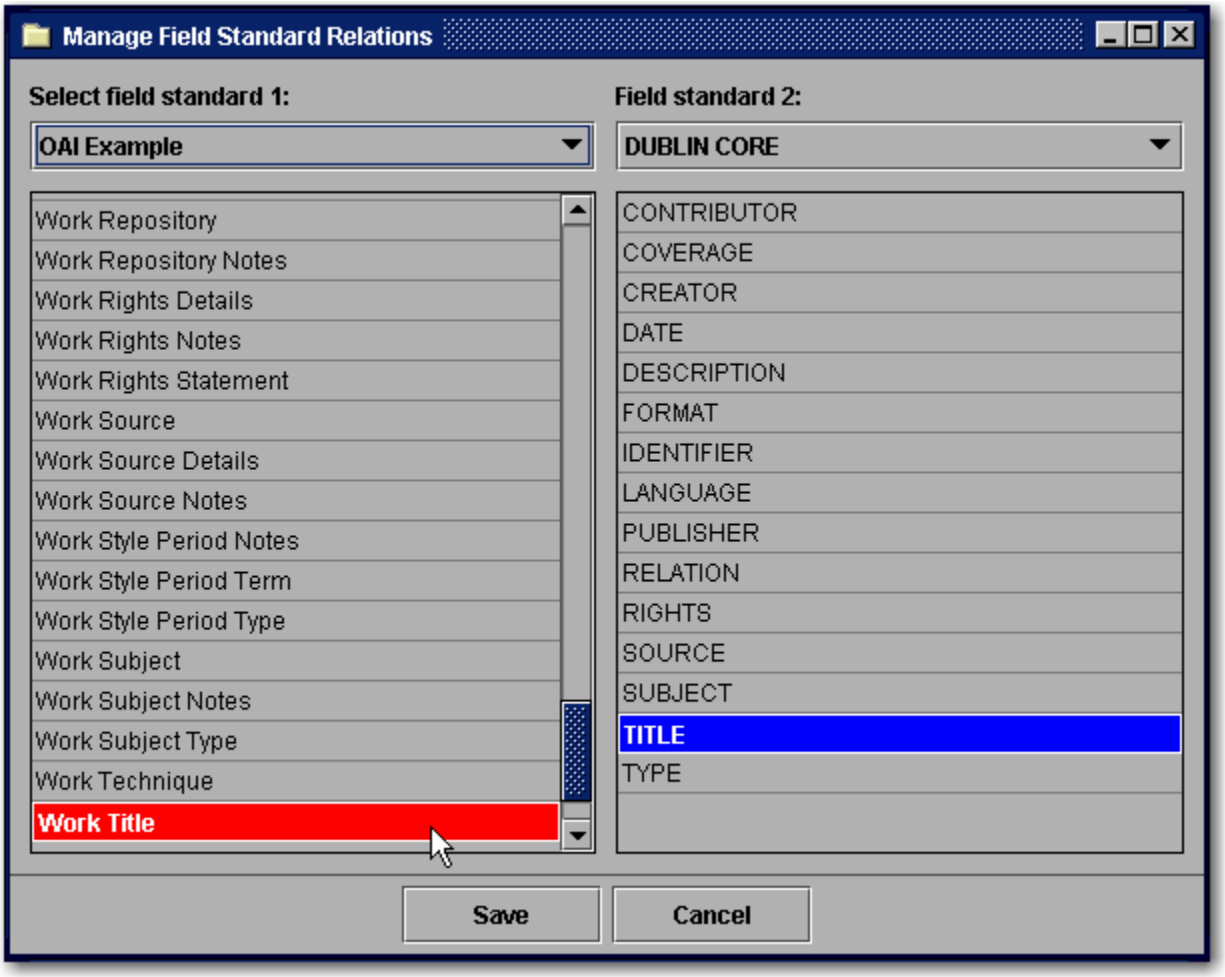
Open your Admin Tools and right click on the Media Fields node then launch **Manage media field relations**.



Once opened, choose your collection from the drop down list on the left side of the panel.



Click on each field you want to make available in OAI-PMH on the left then click the corresponding field on the right. Your source field will be highlighted in red and your associated field will be highlighted in blue. Once done click the **Save** button.



> **Important!** Once your mapping of the fields is complete, you must restart the LUNA service.

Testing your Collection

In the following tests, replace localhost with your LUNA server name and port number.

This first request asks the server to "Identify" itself and returns the repository name and admin email.

```
Request:
http://localhost:8180/luna/servlet/oai?verb=Identify
```

Result:

```
- <OAI-PMH xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
    <responseDate>2010-07-28T08:26:33Z</responseDate>
    <request verb="Identify">/luna/servlet/oai</request>
  - <Identify>
      <repositoryName>Luna Imaging Inc</repositoryName>
      <baseURL>http://localhost:8180/luna/servlet/oai</baseURL>
      <protocolVersion>2.0</protocolVersion>
      <adminEmail>OAIAdmin@lunaimaging.com</adminEmail>
      <earliestDatestamp>1979-01-01T00:00:00Z</earliestDatestamp>
      <deletedRecord>no</deletedRecord>
      <granularity>YYYY-MM-DDThh:mm:ssZ</granularity>
    </Identify>
  </OAI-PMH>
```

Next, you are asking the system to list all the records "ListIdentifiers" and their unique identifiers. insight63icm~4~4~21~100073 is an example of an identifier. It's made up of the InstitutionID~CollectionID~uniqueCollectionID~ObjectID~MediaID

```
Request:
http://localhost:8180/luna/servlet/oai?verb=ListIdentifiers&metadataPrefix=
oai_dc&set=insight63icm~4~4
```

Result:

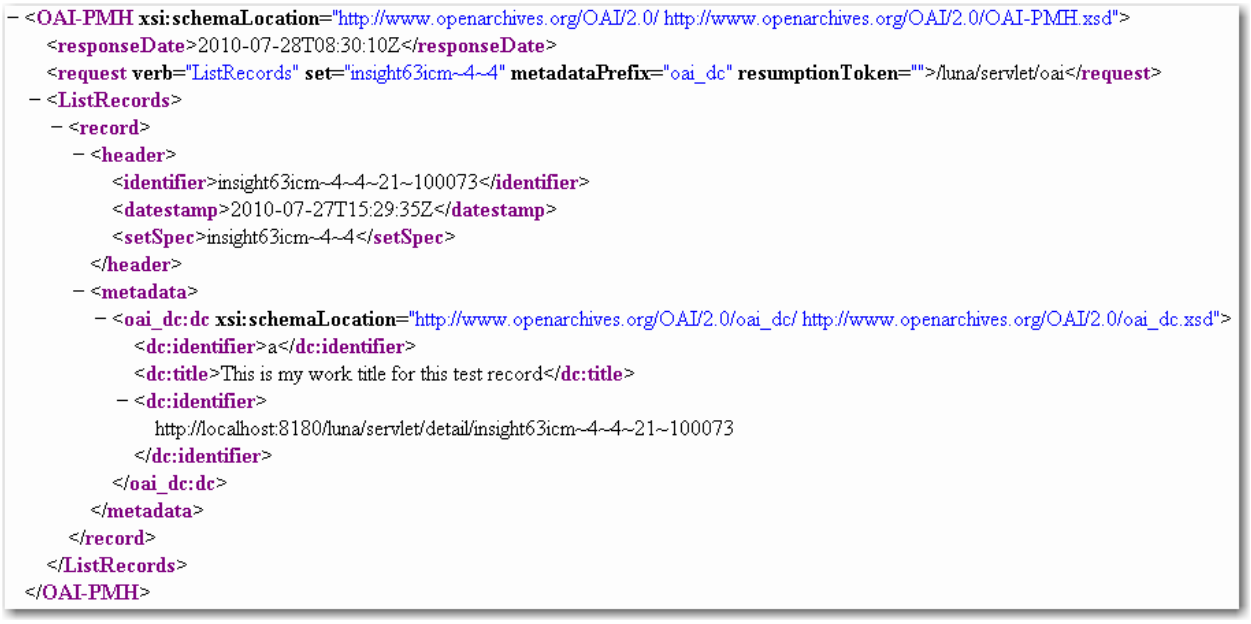
```
- <OAI-PMH xsi:schemaLocation="http://www.openarchives.org/OAI/2.0/ http://www.openarchives.org/OAI/2.0/OAI-PMH.xsd">
    <responseDate>2010-07-28T08:02:39Z</responseDate>
    <request verb="ListIdentifiers" set="insight63icm~4~4" metadataPrefix="oai_dc" resumptionToken="">/luna/servlet/oai</request>
  - <ListIdentifiers>
    - <header>
        <identifier>insight63icm~4~4~21~100073</identifier>
        <datestamp>2010-07-27T15:29:35Z</datestamp>
        <setSpec>insight63icm~4~4</setSpec>
      </header>
    </ListIdentifiers>
  </OAI-PMH>
```

The next request will list the first 50 records using "ListRecords". This will return the content in the form of a URL.

```
Request:
```

```
http://localhost:8180/luna/servlet/oai?verb=ListRecords&metadataPrefix=oai
dc&set=insight63icm~4~4
```

Result:



If these tests are returning results then your collection is ready to provide access to an OAI harvester.

You can also test your repository at the OAI Repository Explorer

To submit your content to a harvester just submit your Base URL.

http://localhost:8180/luna/servlet/oai