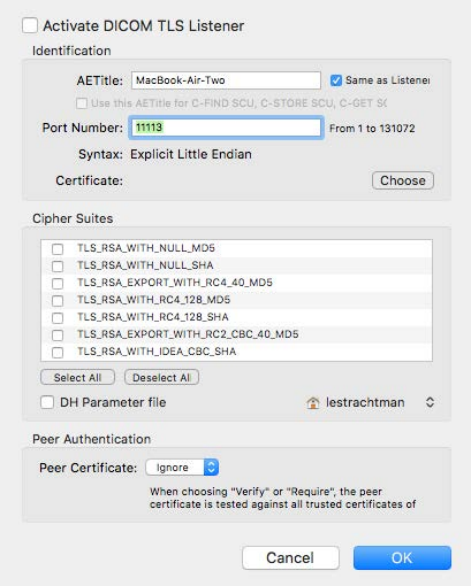

Figure 2.15

Just like the other listener, the TLS listener needs an AE Title and a port number, which can be the same as the other AETitle. The port number will have to be set to a unique setting, different for each listener.

It should be noted, that the TLS listener requires a valid Certificate with the associated private key.

Incoming Files

These parameters enable you to alter the frequency of checking for new files as well as compression. You can select the delay (in seconds) for checking for new files.

You also can choose the decompress compressed images or compress non-compressed images by making these radio button selections. Select either:

- *Don't modify incoming files*
- *Decompress compressed images*
- *Compress non-compressed images with JPEG algorithm*

The compression settings for the JPEG algorithm are designated in General preferences.

Unreadable Files

If Horos is not able to read in incoming file, it will not be able to index it. You can choose to automatically erase these files as they are encountered. However, we recommend that you keep these files so that you will later be able to determine why the file was not readable. As such you can optionally store them in the NOT READABLE folder.

You also can check the box to replace existing files with new ones if they are otherwise identical.

Other Options

Activate Horos database sharing

Horos can be configured to make its database available to other users remotely through an embedded proprietary protocol. Authorized remote access users can view and transfer images from the Horos database. To share the database you will need to publish it using the designated name. Protect access to your database by clicking the box and adding a password.

Publish my DICOM node over the network through the Bonjour protocol

Horos can communicate over a network using Bonjour. Other workstations connected to the same network (subnet) and using Horos workstations can send images without having to enter the listener parameters.

Incoming and shared files are linked to the default database

Incoming images can be stored in the currently loaded database, or elsewhere. The default Database is set in preferences. If this box is checked, the new images will be stored in that default database.

DICOM Network Events Logs

An important feature of Horos is its ability to store logs of DICOM Network events. The logs can have durations of up to one year. They are set using the pull down option.

Server Mode

Although we don't recommend it for large data sets, Horos can be set to run as a server. Doing so, will change certain Horos behaviors including:

• Don't display error messages. Since no error messages will be generated, Horos will not have to wait for a user to accept of cancel an error message to continue to operate.

• When a new version of the software or a new plugin is available, this message will not appear and will therefore not interrupt operation waiting for a user to accept the message or take other action.

• The database window will be hidden.

• The Database Engine will be purged every 4 hours, optimizing memory usage.

C–GET SCP

You can activate C–GET and/or C-FIND support by checking this box.

XML–RPC Server

The XML–RPC Server can be activated by checking this box. You can also set Horos to search other Horos or OsiriX servers as well as close all 2D viewer before displaying studies with XML-RPC orders by checking that box.

Locations

This screen enables you to change DICOM nodes settings and add other nodes to your DICOM network like other workstations, modalities, PACS, DICOM printers and more.

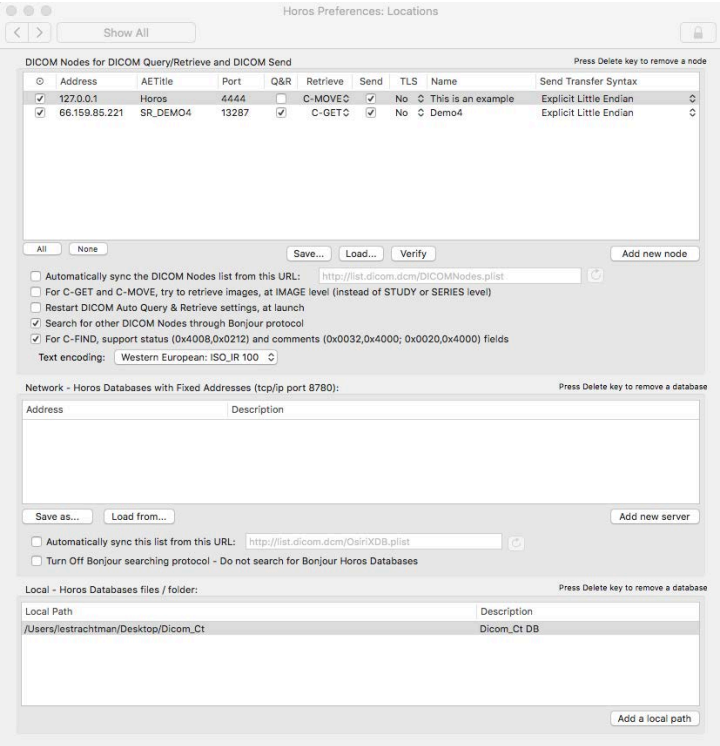

Figure 2.16

DICOM Nodes (DICOM Query/Retrieve and DICOM Send)

This is where you can automatically manage your list of DICOM nodes. Alternatively, you can set to manually enable the following actions:

- ***Add a new entry*** *– click on the Add new node button. This will add a new node to the list. You can then modify each entry.*
- ***Add a new generic entry*** *to the list. First, click on the Add new node button to add a new line, then modify each field.*
- ***Remove an entry*** *from the list by highlighting an existing node and pressing the "delete" key*
- ***Modify a field****, double click on the text and then enter the new desired text.*

Each DICOM node line will contain the following fields:

- *IP address*
- *AE Title*
- *Port number*
- *Query & Retrieve: should be set to either on or off. This option enables querying of the node from this station.*
- *The Retrieve mode with be set to any of: C–MOVE, C–GET or WADO*
- *Send: check to enable. This enables sending DICOM objects to the node from this Horos workstation.*
- *TLS: Set this to either YES/NO. If set to YES, you have enabled TLS communications between the node and this Horos workstation and a new screen will appear enabling you to set the TLS settings.*
- *A text description (human readable name) of the node.*
- *The Send Transfer Syntax can be selected from the pull down list shown below.*

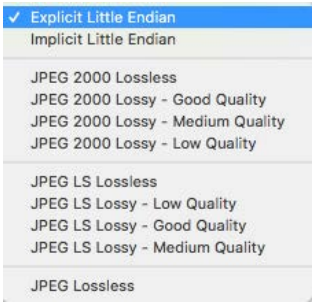

Figure 2.17

You can change the order of the DICOM nodes on the list by clicking on the entry and dragging it up or down the list. Nornally, you would move a node up the list if it is the one you most frequently use.

Your easier alternative is to manage the DICOM nodes list automatically. Click the box next to Automatically synch the DICOM Modes list… and choose the URL that contains the plist of these nodes. Manual settings will be disabled. Instead Horos will use the information from this URL containing information about your DICOM nodes.

The list of DICOM nodes can also be manually loaded from an XML file. Additionally, checking the boxes below will chage the the parameters shown.

Check the box next to: For C-GET and C-MOVE, try to retrieve images at IMAGE level (instead of STUDY or SERIES level) to force Horos to retrieve images themselves

Check the box next to: Restart DICOM Auto Query & Retrieve settings at launch to enable this function.

Check the box next to: Search for other DICOM nodes over Bonjour to use that protocol to find other nodes.

Check the box next to: For C-FIND, support status to set C-FIND protocol as indicated.

You may also set the Text encoding to any of the following encoding schemes shown on the following screen.

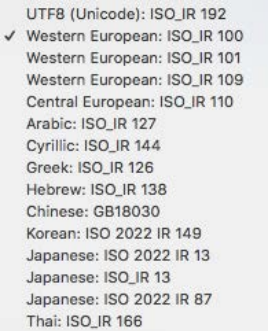

Figure 2.18

Shared Network of Horos Databases

This is where you can add or edit a list of additional Horos databases. Again, you can do this either manually or automatically. This is done automatically if you select the button next to: Automatically sync this list from this URL and enter the URL address. You can manage the list manually by pressing the button to the right below the list: "Add new server". Doing so adds a new address and description that you can manually edit by double clicking that text. You can delete databases by highlighting a database and pressing the "delete" key.

Again, you can export this list in XML format or you can load a new list in the same format.

Local Horos Databases files/ folder

Here you an manage a list of locally accessible databases. Similar to above, you can add a new local database by clicking the "Add a local path" button near the bottom right of the box. You can then edit the database by double clicking on it or highlight it and press the "delete" key to remove it.

Again, you can select the box next to Turn off Bonjour searching protocol, to disable this access protocol.

Routing

Horos has the ability to auto route a study to another DICOM node based upon a rule that you can set. To activate auto routing, check the box to the left of Activate AutoRouting. Then check the box if you would like to generate an error if an auto routing rule fails. Auto–routing rules can be used to synchronize and archive other types of data like comments, secondary captures and the like.

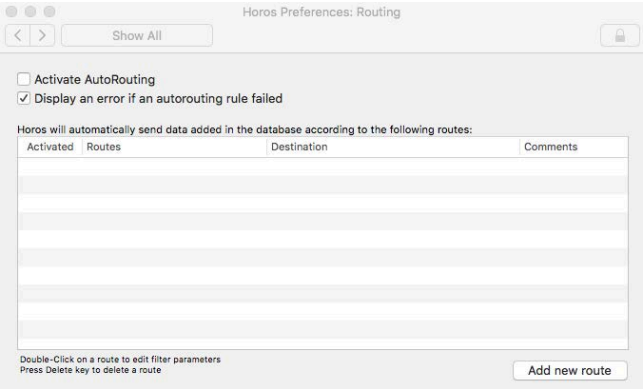

Figure 2.19

Each route has a destination node and an attached rule. If the rule is satisfied, the images will be sent to that destination node.

You can choose any destination that was set in the Locations preference. Rules governing the routing can be composed of a SQL filter or ALL DATA generated by Horos can be routed. In addition, you can send previous related studies.

If the routing fails, you can set Horos to automatically retry the routing. And further, Horos can determine if the images that are to be sent are already present at the destination and refrain from resending, using a C-FIND SCU test.

To add a new route, press the "Add new route" button near the bottom right of the list. This will display the following new screen.

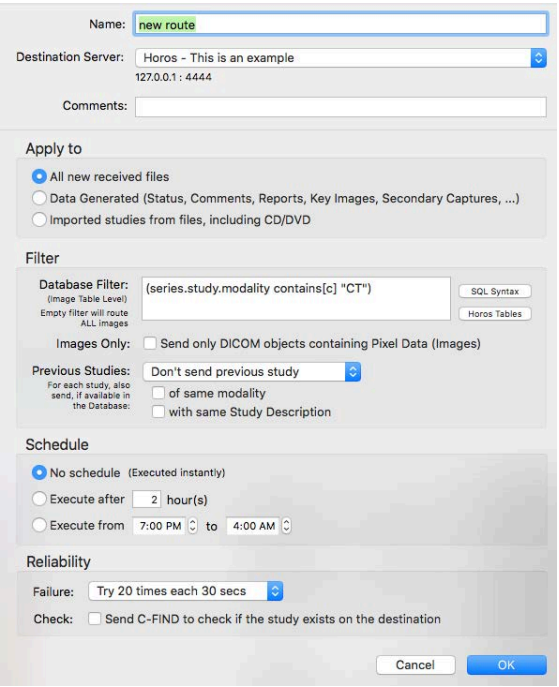

Figure 2.20

Enter a new name for routing and the destination server. The choose from the boxes to describe what you would like to apply this rule to, what the actual filter to be used to test whether to route the study or not, whether you wish to send prior studies and then designate the schedule for routing. You can also alter the number and frequency of retries as well as whether you wish to see if the study has already been sent prior to sending.

Once this information is complete, press the “OK” button.

Web Server

Horos contains a built-in web server. This can be activated in this screen’s settings top option check box.

The remainder of the options for the web server set up can then be selected.

You can choose the web server port. The default is set to 3333.

You can choose to active secure HTTPS connections with a choice of certificate from a list that will then be displayed.

You can choose to active WADO server and only accept the WADO request from an identified user.

You can activate Weasis support which is a built-in Java DICOM viewer.

You can set your preference for Flash instead of QuickTime and then set the number of frames and pixel values.

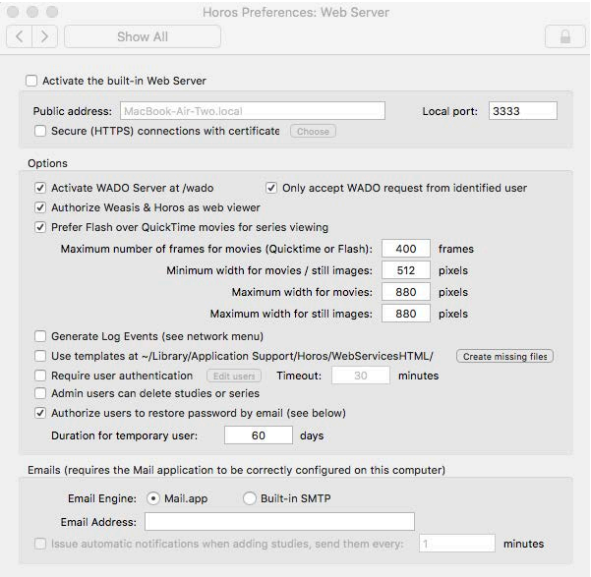

Figure 2.21

You can choose to enable the logging of events

You can choose to use custom web pages.

You can authorize Admin Users to delete studies or series

You can choose to activate users to restore passwords via email as well as the duration (in days) of a temporary user.

You then can choose the email sender engine Mail.app or Horos built-in SMTP server and can designate the email address for that account.

On-Demand

With this screen, Horos enables you to activate PACS on Demand, by clicking the button near the left top of the screen. This allows you to select the DICOM nodes that Horos will use to try to find available studies. All of the nodes listed in the window are defined in the Location preferences settings.

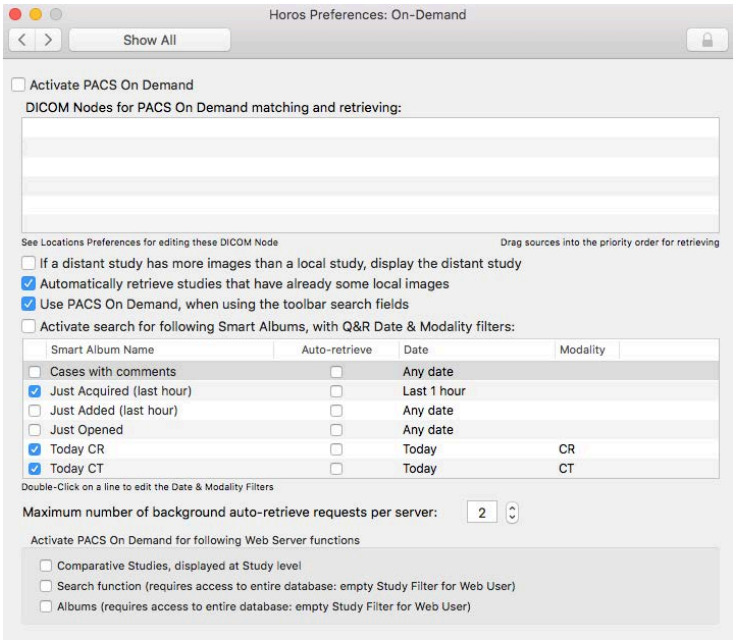

Figure 2.22

You can then set the parameters for the order and priority in which Horos will search from images. This screen also allows you to search smart albums with the designated parameters in the smart album's list. You can activate *PACS on demand* for certain web server functions shown on the bottom of the screen, including Comparative Studies.

Chapter 3

Menus and Navigation

THE HOROS MENU SYSTEM

Throughout the software, there are menus that help with the fundamental navigation of the system. These are described in this chapter. Typically, if a menu selection is not active, it will appear in grey font and will not be accessible from the menu. To the right of many menu functions are shortcut key combinations that will perform the same role as a selection from the menu.

We start from the very top of the screen that appears when Horos is launched. Beginning left to right we will pull down each menu and describe its function.

Figure 3.1

Next to the apple logo which includes information specific to your particular workstation and operating system is the "File" pull down menu.

Figure 3.2

That menu is shown above. The "About Horos" pull down includes a set of three embedded screens shown below that: describe the version of Horos you are using as well as: (1) information on the derivation of Horos and the open source projects that have contributed to the software, (2) release notes for the latest version you are using and (3) our partners in the Horos Project.