

Training & Setup Manual



www.2020imaging.net · 866.734.6234

Bi-Directional and Midbase X-Ray w/ HG+ DR Panel

Database v 2.3.3.x

Podiatry specific Guide

Last Edited: October 22, 2013



1. Pre-Install site survey

a. Cabling

1. Note location of electrical outlets and network connections.
2. Site must have ethernet ports at the location of both the Desktop PC (Server) and Acquire PC (Laptop). They must be connected to the same network and have the ability to communicate with each other.
Note: Network drop should be in the xray room for the laptop, it must be hardwired.
3. Site must have internet access (will be used to support system).

b. Power

1. Note where equipment is to be placed and lay out cable management.

c. X-Ray location

1. Talk with staff about placement of workstation, laptop and X-ray equipment.

d. Training list and times

- Confirm setup & location of server, laptop, and any carts needed for system
- Confirm training time/date, and people attending
-2hrs set aside for training time (x-ray techs and doctors), with optional 1-2hrs practice time
- Confirm assistance time/date
-depending on their schedule, 1-8hrs available time

2. Unpack & Inspection

a. Inspect Container

1. Check condition of boxes and notify 20/20 Imaging immediately if Carrier has not been made aware of damage.
2. Make sure all boxes have arrived and notify 20/20 of any problems.

b. Inventory

P-DR Unit

- Panel
- 15' USB Cable
- Power Supply
- A/C Cable
- Calibration CD
- Calibration Plate w/ 4 pins

PC (Server) Tower

- Tower
- Keyboard
- Mouse
- Software package
- A/C Cable

Monitor w/ cables

Laptop (Acquisition machine)

- Laptop
- A/C Cable w/ power supply
- Re-Installation discs

XCel X-Ray System

(parts based on system purchased)

XCel Bi-Directional:

- Base
- Radial Arm & Handles
- Control Unit
- Tube Head
- Calibration raiser w/ screws

XCel Retrofit:

- Base
- Calibration raiser w/ screws

- 5 Blank CDs
- 2 External Hard Drives (backups)
- 1 Battery backup w/ surge prot.
- 1 Standard surge prot.
- 2 CAT 5 Ethernet Cables
- 1 Foam Pad (optional)

c. Tools Required

- 1/2" Nut Driver
- 1/2" socket
- Large Philips screwdriver (P3 size)
- Large Flathead screwdriver (P3 size)
- Miniature screwdriver set
- A/C Voltage meter
- Utility knife

3. Assembly

a. Assemble X-Ray unit

1. Your installation may be; New Mid Base, Bi-Directional or Retro fit. Depending on which one you have, installation may differ.

Retro-fit Disassemble

1. Unplug unit from wall.
2. Unscrew tube head cable from control unit.



3. Remove nut/screw under tube head (set screw aside).



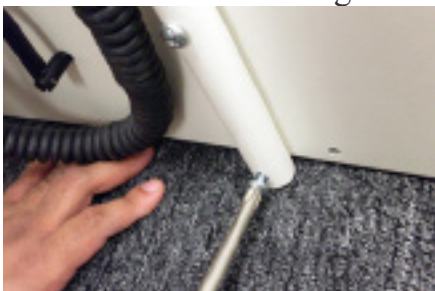
4. Pull tube head out toward you, and set aside.



5. Remove 4 bolts holding the radial arm, set arm aside.



6. Remove 4 screws holding the side handle/control unit, set aside.



7. Remove 2 screws holding the support bracket. Discard.



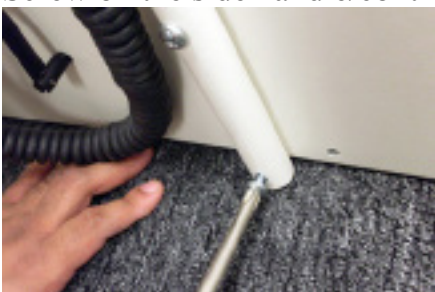
8. Move old base aside and out of way. You no longer need the base.

Retro-fit Assembly

1. Bolt on radial arm with new bolts provided to the base.



2. Screw on the side handle/control unit onto the base with new screws.



3. Screw on the new support bracket to the base using new screws.



- *. Now is a good time to place lubricant on the tube head rod.

4. Insert tube head into the radial arm fully.



5. Screw the nut/screw into the tube head (located at bottom).



6. Connect the tube head cable to control unit. Be sure to align pins with holes.



7. Your system is assembled.

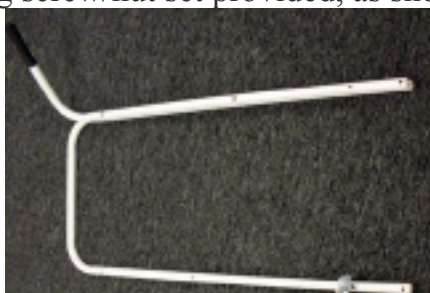


Mid-Base Assembly

1. Bolt on radial arm with bolts provided to the base.



2. Attach both handles together using screw/nut set provided, as show below.



*tube head will be placed on bottom bar as show, not the double bar.

3. Unscrew 2 screws (set aside) on left handle and slide same handle through both slots on control unit



4. Screw same 2 screws recently removed back into handle, to hold in place once setup.



5. Screw on the side handle/control unit onto the base.



6. Screw on the support bracket to the base.



7. Insert tube head into the radial arm fully.



8. Screw the nut/screw into the tube head (located at bottom).



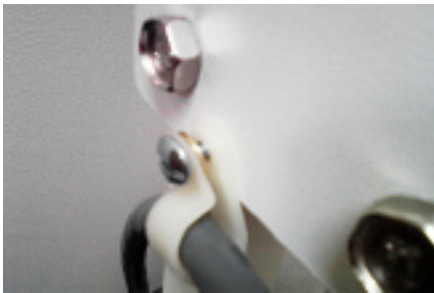
9. Install both cable holders at each position. These are the parts you will need.



10. Locate both slots for each holder to get attached.



11. Screw in each attachment.

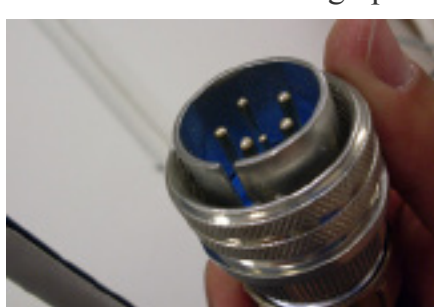


(shorter screw used @ top)



(longer screw used @ bottom)

12. Connect the tube head cable to control unit. Be sure to align pins with holes.



13. Your system is assembled.

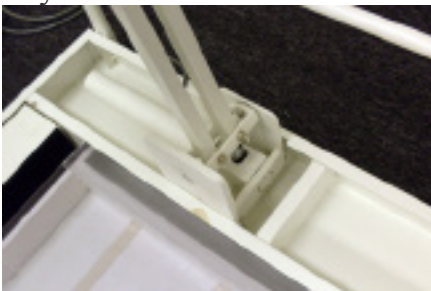


Bi-Directional Assembly

1. Unpack and lay base on ground.
2. Unpack radial arm, handles, accessories, etc. box and set components aside.
3. Remove 6 screws along side (around) of base in order to remove both top shelf (covers).



4. Lay radial arm in base and attach with 4 bolts.



5. Re-attached both top shelves (covers) to base with same 6 screws.



6. Attach rear handle with 4 screws.



7. Attach front right handle using L bracket provided with 4 screws.



8. Unpack both control unit and tube head, and set aside.
9. Unscrew 2 screws (set aside) on left handle and slide same handle through both slots on control unit



10. Screw same 2 screws recently removed back into handle, to hold in place once setup.



11. Mount handle w/ control unit attached to base. Use L bracked with 4 screws.
*Tip: Screw two screws into the bar on the handle the control unit is not attached to. This will relieve some of the weight making it easier to finish the other two screws.



12. Remove nut/screw under where tube head get mounted to and set aside.



13. Insert tube head into the radial arm fully.



14. Screw the nut/screw into the tube head (located at bottom).



15. Install both cable holders at each position. These are the parts you will need.



16. Locate both slots for each holder to get attached.



17. Screw in each attachment.



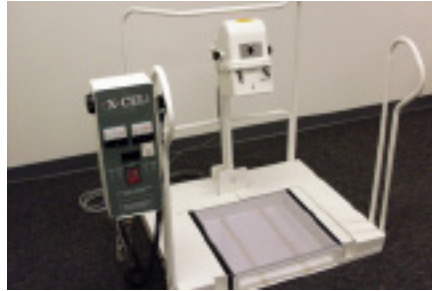
(shorter screw used @ top)

(longer screw used @ bottom)

18. Connect the tube head cable to control unit. Be sure to align pins with holes.



19. Your system is assembled.



- ** After completion, turn on and test X-Ray unit. Check mA meter to ensure the needle on mA reading stays within the correct (15mA) area (it does not go under or into the red area). If it is not correct, this needs to be adjusted (refer to Troubleshooting section).
- ** Ensure the XCel unit is NOT plugged into the battery backup used by the Panel and Laptop and plugged directly into the wall.

b. Install PC (server)

1. Completed PC setup examples at location as directed by office.



c. Checking Components & Logon

1. Make sure PC & Monitor are both plugged in and turned on
2. Check DR Panel to make sure USB and power cable are both plugged in. Power should be lit green. If not, ensure power switch on A/C adapter is on, as well as plugged in.

3. **Log onto Windows; user credential provided with equipment, or call in to 20/20 Support for current user/password.**
4. Log onto OpalRad/Spectacle (icon on Desktop) with your username and password provided
*Default user account: user- admin password- 2020tech

d. X-Ray Images backup

1. Backup will already be setup. To ensure it is, open the 'SyncBack' utility
2. Plug in ONE USB cable from the two external backup hard drives, leaving the other cable away with the other extra CD's and manuals. This will ensure only one external hard drive backup gets plugged in at a time, so the backup runs correctly.
3. The second day of the installation, ensure it backed up. If you are only installing one day, you can manually run the backup, and check it upon completion by clicking the 'Backup' button

***IMPORTANT NOTE:** Inform the practice to be sure they do NOT change the 2020tech user account username or password, as the backup will not run if the account is modified.

e. Install PD-R Sensor

1. Unpack Sensor and set aside calibration CD and grid, you will use these later to calibrate.
2. Remove Sensor from case plug in both cables (A/C Power & USB).
3. Attach Sensor power cable to provided surge protector, as well as the power port to the Sensor. Ensure the power switch on the A/C adapter is turned on.

f. Install Laptop (acquisition)

1. Remove Laptop and all components from box.
2. Setup within distance to the PD-R Sensor & XCel X-Ray machine. USB Cable is 15' so it must reach as well as have an aesthetic look to it (must not be in the way where a patient or employee will trip).



3. Plug USB Cable from Sensor to an available USB port on the Laptop.

g. Connecting Server & Acquire

They will communicate through the office's network; (1) Thru DNS (data source name) or (2) with the IP address of the Server *if set by IT statically.

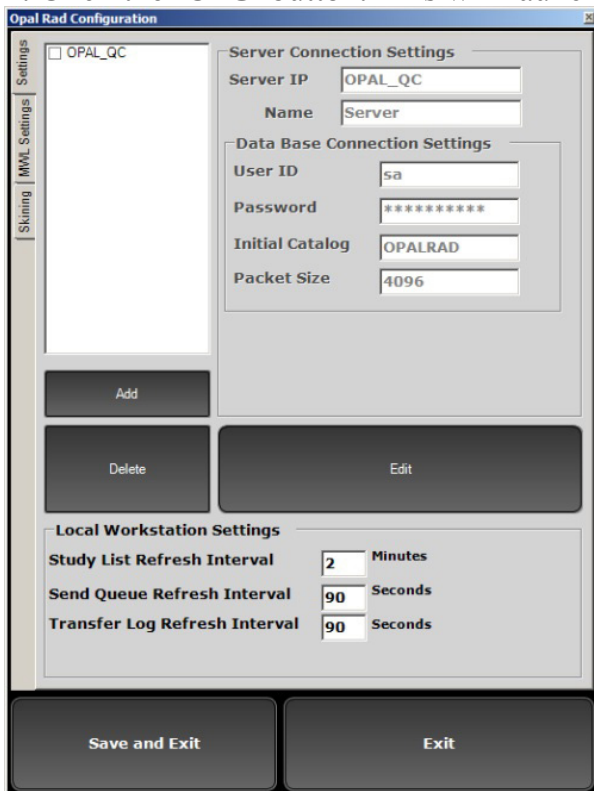
By default, the Acquisition is setup to DNS recognition.

***It is HIGHLY RECOMMENDED to have a Static IP address set on the X-Ray Server.**

Some networks will not or are not configured to allow DNS recognition. If this is the case, you will need to have the office IT person or network administrator set a static IP address on the Server PC. After this is done, you will need to go into the 'Opal Rad Configuration' screen on the Acquisition PC (as well as all the viewers are or will be set up). To do this:

1. Launch OpalRad/Spectacle login screen.

2. Click the 'CFG' button. This will launch the configuration screen.



3. Click 'Edit'. Then click in the upper left click the current IP setup of the server (will most likely read 'OPAL_QC').

4. To the right of 'Server IP', insert the IP address of the server.

5. The 'Edit button you clicked on will now read 'Update'. Click 'Update' button.

6. Click 'Save and Exit' at the bottom left (only click Exit if you do not want to save your changes).

4. Calibration

Opening UAI (acquisition)

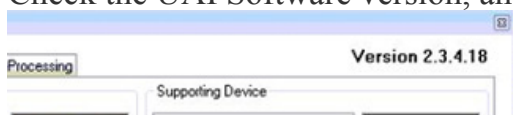
You can open the UAI Acquire software two ways; from the StudyList, or manually from the start menu. A benefit to opening it up manually is if you do not yet have connectivity to the Server PC, and would like to get the system calibration and tested on the acquisition side.

From Studylist: As normal, log into OpalRad/Spectacle. Click ‘Create new Study’ button. Enter test patient demographics and click ‘Acquire’.

Manually: Click the Windows Start button. Type C:\Opal\bin\OpalUAIStandalone.exe and hit Enter. Click the Launch button at the bottom. You can now calibrate, test, etc. However keep in mind no images you take will save by opening the UAI this way.

Update UAI Version

1. Check the UAI Software version, and update if necessary



To see what the latest version is, visit:

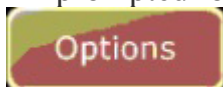
www.2020imaging.net/support/latest.php

download the latest ‘UAI’

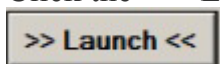
2. ***Ensure UAI software is closed, as well as all Opal software (Studylist, Viewer) before install**
3. Install Latest UAI version software

Initialize DR Panel (if acquire button is not available)

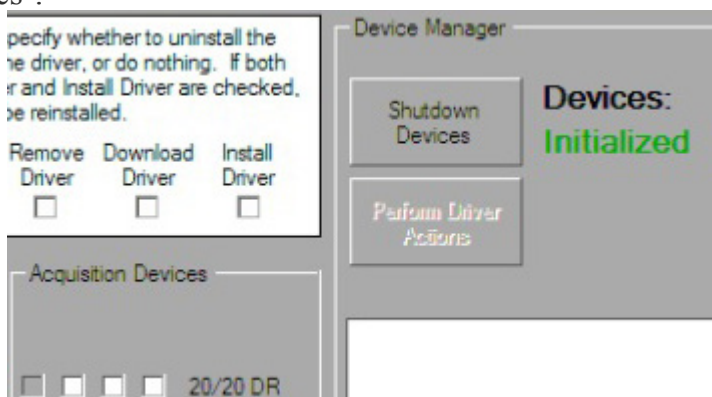
1. Open UAI (methods listed above)
2. Click ‘Options’ to open Configuration
*If prompted for password, use **adc4me**



3. Select the 'Device Configurations' tab
4. Click the '>> Launch <<' button near the bottom left to open Device Manager dialogue box



5. Click 'Shutdown Devices' button. Button changes to 'Initialize Devices'. Click 'Initialize Devices'.



6. DR Panel will now be initialized and ready.

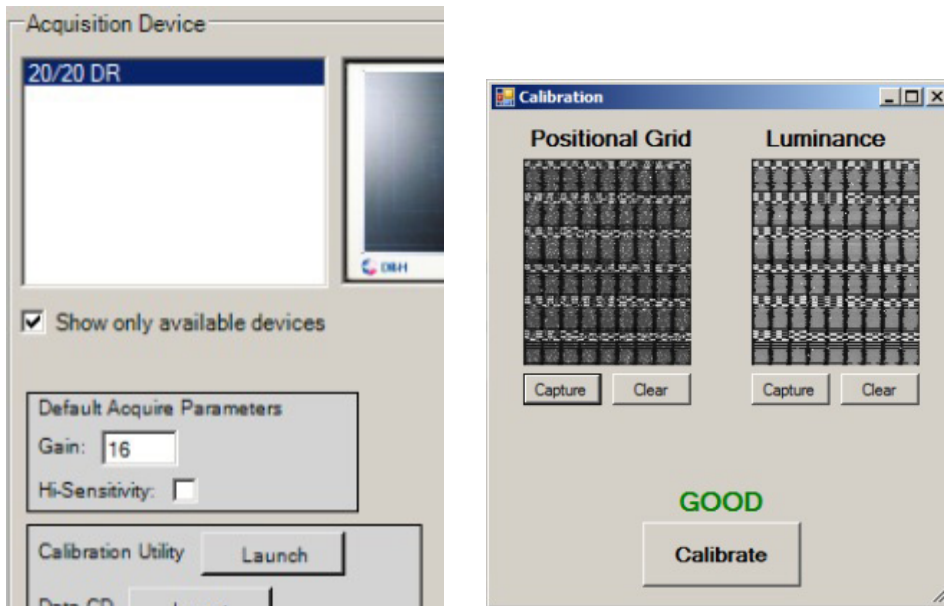
Manual Calibration (required)

Note: If you are RECALIBRATING for a current customer, be sure to backup the DEFAULT folder, located at C:\opal\data. Make a copy, and rename it to DEFAULT_OLD.

1. At the X-Ray and DR panel: tube should be centered to the center of the panel. Tube should be parallel from top (AP Position except at 0 degrees) to front of Sensor and entire Sensor should be covered by light field. Bulls eye should be in center of panel guide.



2. At Acquisition PC: Open UAI acquisition (methods listed above)
3. Click 'Options' to open Configuration
4. Select the 'Device Configurations' tab
5. Under 'Configuration Pool', click 'DEFAULT'. Options will appear under 'Acquisition Device'
6. Scroll down to 'Calibration Utility' and click the 'Launch' button



7. At the X-Ray Generator dial pad, change the technique to: 60kv (@15ma), 006 for time.
*If you receive an exposure too high error, lower kv in small increments & retry. **You want the highest possible passing image.**

Note: You can select 'Verbose Mode' (version .22 and later) to view the actual calibration and get more information in case it is failing for any reason. If you receive a message to 'move calibration grid', that usually means to raise/lower technique.

8. Back on the Acquisition PC, Click 'Capture' under 'Luminance'. Take the exposure on the X-Ray
9. Place Position Calibration Grid on Sensor correctly –make sure it is flat against Sensor and does not move while sliding it under the Plexiglass. It is suggested to place a piece of tape at the top (not covering the exposure holes) to keep it in place.



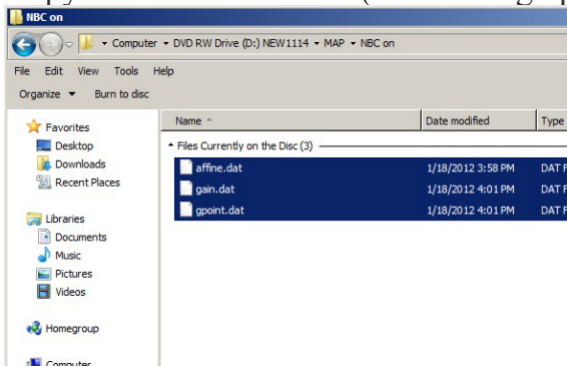
10. At the X-Ray Generator dial pad, change the technique to: 50kv (@15ma), 006for time.
*If you receive an exposure too low error, raise kv in small increments & retry. **You want the lowest possible passing image.**
11. Back on the Acquisition PC, Click 'Capture' under 'Positional Grid'. Take the exposure on the X-Ray
12. Click the 'Calibrate' button, be sure to watch while the software is running the calibration, to see whether the calibration returned okay, or if there are any errors.
13. Take a test show with a Foot Phantom or test device, using each view to ensure quality. X-Ray technique recommendations on page 45 below.

CD Calibration (copy files only)

NOTE: It is required to copy the files from the Calibration CD into C:\MASTER (NOT C:\opal\data) on the acquisition PC for future use. Using the CD calibration is not advised unless otherwise specifically directed by a 20/20 technician.

1. Insert CD provided with Sensor into Acquisition PC.

2. Open 'Computer' from the desktop.
3. Open the CD-ROM drive (D:)
4. Open the 'MAP' folder, then 'NBC On' folder' (if exists)
5. Copy all three files listed (Alt to bring up menu, Edit > Select All, Edit > Copy)



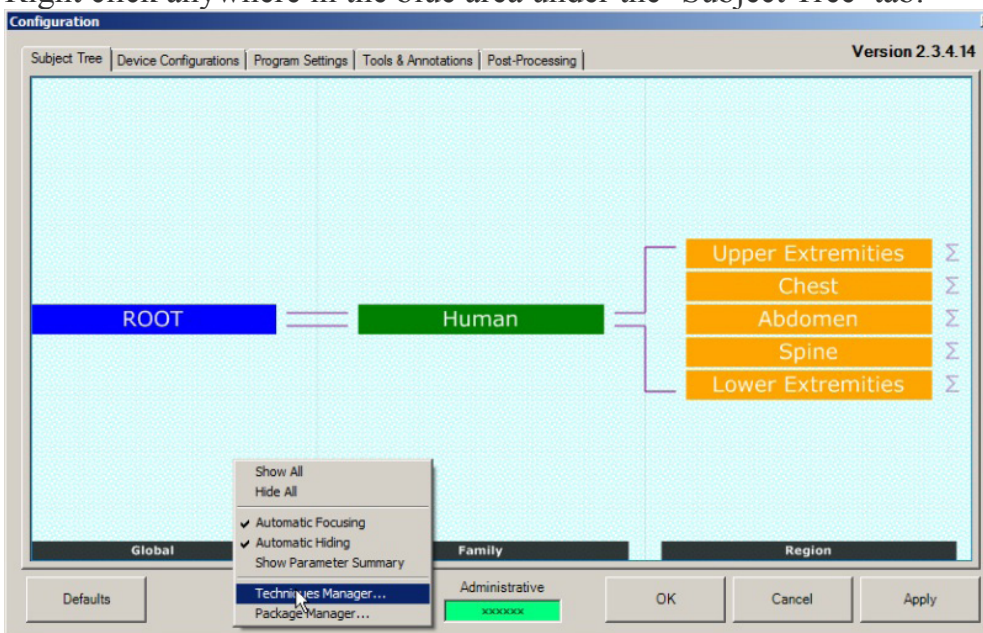
6. Click on 'Computer' near the top in the address bar
7. Open the C: drive
8. Browse to 'opal' folder, then 'data', then create a new folder named 'DEFAULT_CD'
9. Paste the three files in this folder (Edit > Paste).
10. This is used as a backup/original calibration in the future, in case the files are needed.

Podiatry Specific Views

Podiatry specific views should already be set in the UAI. If they are not (set up as Chiropractic instead), you can change the views to podiatry only (Foot, Ankle, etc.) of the lower extremity.

*You must be connected to the internet on the Acquire PC

1. Open UAI.
2. Click 'Options'
3. Right click anywhere in the blue area under the 'Subject Tree' tab.



4. Select 'Package Manager' option. Let the list of packages load for a minute.
5. Find '2020DRPodiatryLR..' under 'Online Packages'. Select it and click the '< Download' button
6. Close Package Manager, and click 'OK' in the 'Configuration' box. You are now set for Podiatry views

5. Install Clients

a. Install viewing stations

1. Right click on the desktop. Select 'New' > 'Shortcut'
2. Type the location of the item: **http://OPAL_QC/** (or **http://(ip address)/**)
3. Click 'Next'
4. Type a name for this Shortcut: (name it as you wish to identify the X-Ray software) ie. 'View X-Rays'

NOTE: The shortcut must open with Internet Explorer. Double click the shortcut created to ensure it does. If it does not, continue to next step, otherwise skip to set 00.

Ensure shortcut opens with IE

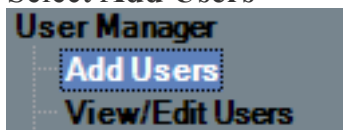
- a. Set Internet Explorer as default browser
or
- b. Change url file type to open with IE

*Both of these options depend on which Windows operating system you are on

b. Setup user(s)

1. While in Client Worklist (on either the Server or Acquire PC); While logged into OpalRad/Specacle, click the **Admin** tab at the top.

2. Select **Add Users**



3. Add all information that is required (highlighted in red).

*Note: Concurrent by default is (1), meaning the user may only be logged in on one machine

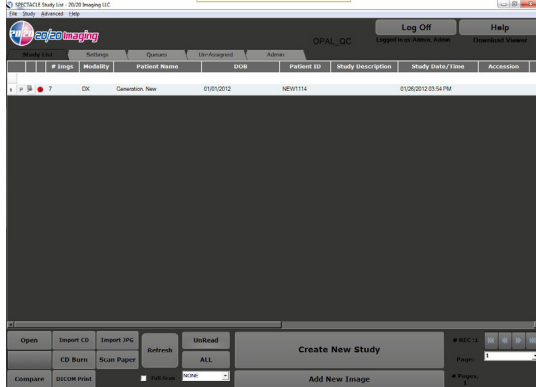
at a time. This may be changed up to (5), allowing the user to be logged onto multiple machines at once.

4. Login Timeout; you can set the session to terminate after a certain amount of time. The default is 20min
5. Click **Save**, and **Finished**. Done.

6. Worklist & Image Viewer

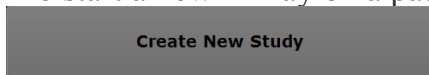
a. Client Worklist (acquiring from)

* This window is your “study list,” which contains a list of all of your patients



1. Shooting a new Patient

-To start a new X-Ray on a patient... click “Create New Study”

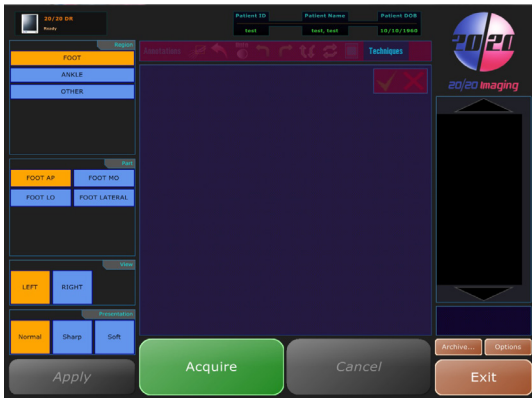


2. Always start with a unique “Patient ID”. Follow with the First Name, Last Name, Gender, and DOB.

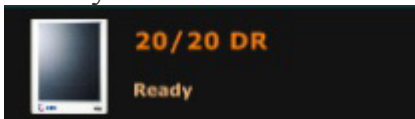
Note: Whether it be a new or existing patient, always use the ‘Create New Study’ option. Only use the ‘Add New Image’ button if an additional or corrected x-ray is requested from the doctor.

b. P-DR Acquisition Software

* This software allows you to take X-Rays



- * You are now in the Acquisition software, where you will shoot X-Rays
- 1. First check to ensure that the PD-R is initiated by checking at the very top, you will see “Ready” or “Not Connected”



- 2. Select a view on the left. Start with ‘Region’, working your way down.
Note: For each view, the ‘View’ (Left/Right) will default or remember the last selection, so ensure the tech knows to always double check the L/R selection.
- 3. When you are ready to shoot the X-Ray, click on the bottom left... “Acquire”



- 4. When you see a white strip across the screen “READY FOR EXPOSURE,” you are ready to shoot the X-Ray (shoot a test X-Ray). By default, you have 120 seconds to take an exposure
- 5. Now you will see a green bar at the bottom of the screen (filters running). In the meantime, it is important the tech is positioning the patient for the next view, to not waste time. By the time they are done positioning for the next view, it will most likely be done or near done and

ready to Acquire another view.

6. When the green bar disappears, your digital X-Ray image has been processed.
7. Ensure the quality of the x-ray image is acceptable, and click the check box, if it is not, and a retake is necessary, click the X to discard the image. You will be prompted for a reason why.



*Note: When the Check button is clicked, it begins transferring that image to the Server. This provides for a fast transfer time to the Server so they can be pulled up quicker upon completion on a viewing workstation


8. The image will be automatically cropped (autosshutter feature). This clears unnecessary ill-exposure, and provides for a better looking image preview.

In the case it does not auto crop correctly (cut into the image), you will have to train the techs to make a manual adjustment. To do so, drag either the corner of the crop box, or the side, moving it to where the image should be. After that is done, ENSURE the 'Apply' button on the bottom left is clicked. It will reprocess the x-ray with the correct portion, and eliminate future autosshutter failures (the system learns from the tech where it SHOULD be auto cropping)

9. You are ready to shoot another X-Ray (repeat from step 2), or exit (go to next step)
10. When you are finished shooting your patient, and ready for someone else, click the 'Exit' button at the bottom right. This will submit your new X-Rays of that patient and exit the acquisition software, bringing you back to the study list

c. Client Worklist (opening Image Viewer)

1. Viewing a current Patient
*IMPORTANT: After shooting a patient, and you need to look up the images right away, they might not show up until you click "Refresh"



Refresh

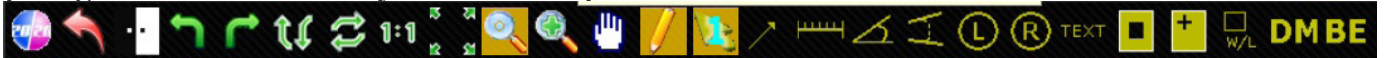
2. To look up a patient, type some criteria in the top white search box above list of studies, such as Patient ID, Name, Study Date/Time, etc. and press Enter. That will filter everything except your search criteria
3. Click once on a patient you wish to view (at the bottom, you will also see a list of the patient's past studies to choose from). Click "open" on the bottom left on the study you wish to open
*Be sure not to click Open more than once as the Image Viewer is loading, and sometimes takes longer than usual. The Image Viewer, if clicked more than one time may freeze, and a re-boot will be necessary.

d. Image Viewer

- * You are now in the viewing software.



[Image/Annotations/Study Control Bar]



- * The top row contains your options to make changes to, set your view, and draw annotations
 - 1. Explain Image controls (Reset Image to original, Invert, Rotate, Flip, Scale 1:1 or Fit, Magnifying Glass, Zoom, Hand Tool)
 - 2. Explain Annotations (Pencil is Edit Mode, Arrow, Simple Measure, Angle, Cobb Angle, Markers, Text, Shutter/Crop Box, Hanging Protocol: saves state of viewing)
 - 3. Study Control (Mark as "Read," & "Close Study")
- Note: Scroll over each button to view what it is if forgotten

[Layout Bar]



- * You have the option to view 1 to 9 images at a time, depending on your chosen layout. Click on any one to compare images

[Selecting Studies/Images]



* You are able to select any image to view by either; double clicking on it, dragging it into the main viewer window, or at the bottom of the screen selecting “Prev/Next Series”

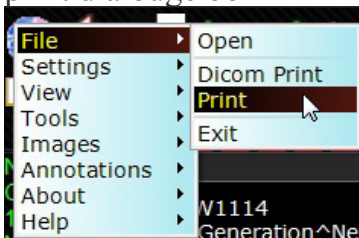
[Other Important Features]

PRINTING:

1. You may print an image by right clicking on the image, and selecting “Add image to print Queue.”



2. Click the “Main Menu” button at the top left, then select ‘File’ and ‘Print’ to bring up the print dialouge box



3. Select your print settings, and click the Print button when finished

Note: Printing will always print to the default printer

IMAGE ADJUSTMENT (Auto W/L ROI):

1. Click the W/L tool in the toolbar at the top
2. Click and drag a box on the image around the region of interest, image contrast will change on the fly

IMAGE ADJUSTMENT (Manual):

1. While in the Image Viewer, to change window leveling within the viewer, use the right mouse button, click and hold, and drag up/down, left/right, until the desired quality is accomplished.

[EXTRAS]

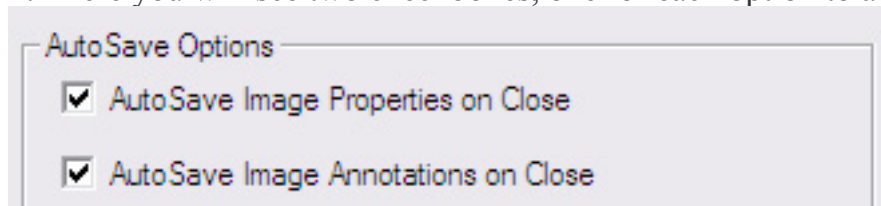
1. There are more tools, annotations, and options in the very top menu. Whatever is needed can be used
2. When you right click anywhere in the image, there are extra options available to the user

[Finished with viewing patient images]

1. When you are finished working on a patient, simply click the X on the very top right to close

Note: The viewer software will, by default, save image changes and annotations when you exit. This may be changed to not autosave by default on exit.

1. While in the Image Viewer, click Settings, Edit, select the User Options tab.
2. There you will see two checkboxes, one for each option to autosave



e. Study List (explained further)

[New/Existing Patient]

1. Click "Create New Study"

Create New Study

Note: You must enter a unique “Patient ID”, as well as a first and last name, gender, date of birth. You also have the option to select (or add for the first time) a **Referring Physician and Institution Name**. These two will tie in with burning a CD as well as printing.

2. You are now in the Acquisition Software, and are ready to take X-Rays.

[Add New Image button]

Add New Image

1. This button will allow to add another X-Ray to a currently selected study, in the case that an X-Ray did not come out good enough, was taken wrong, etc. This is only used when the patient is still in the office. A new “Acquire” is always used when the patient comes in a separate time.

[Compare Studies]

Compare

1. This button is only available when two studies under the same patient are selected. After selecting a patient’s study, if they have other available studies, they will be listed below. Select another previous study, and you will see the Compare button become available.

2. Click the compare button. This will open the viewing software, and both studies will be available on the left column to view.

3. Click on the patients second available study on the left, the other available study’s image will be hidden. You can then click back onto the second study, and so on.

[CD Burn]

CD Burn

1. This allows you to burn on a standard CD-R disc, a study or multiple studies. Select a study you would like to burn. Click “CD Burn”

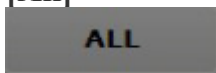
2. By default, the study selected is checked to burn, however, a list off any applicable studies of the selected patient will be available as well in the burn dialouge box. You must check (on the left) each extra study you would like to include.

* **Be sure the check box “with viewer” is checked, as sometimes it may not be.**

3. Click “Start Burning”

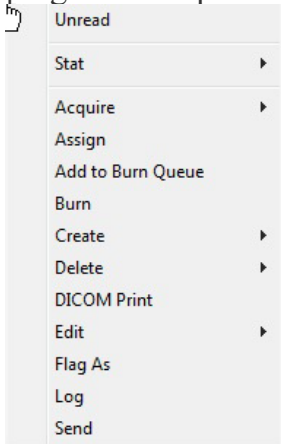
Note: This will write on the CD the DICOM images in full quality. It will also include a Lite version of the Image Viewer. Windows XP, Vista, and 7 are compatible with an available CD-ROM drive.

[All]



1. This will clear any filtered search results (Shows all patients/studies).

[Right click options]



1. Edit Study/Patient. These options allow you to edit existing information. After you are finished editing, simply click “Save”, then “Close”

- a. Edit > Edit Patient: Allows changed to the Patient’s file on a global scale, meaning, if the patient has multiple studies, it will change all of the studies, since they are all attached to the main patient’s file

- b. Edit > Edit Study: Allows changing of the study’s information such as Referring Physican and Institution name. You can also change the patient ID to change which patient the set of x-rays or the study belongs to.

2. Delete Study. This allows to delete the selected study. It is temporary until you purge. To purge (permanatly delete) the deleted studies: Click **Study** at the top of the Client Worklist, select **Purge**. Click the **checkbox** of the studies to delete, then click **Purge Study**.

[Log Off]

Log Off

IMPORTANT: When exiting the software, this button must always be used, rather than clicking the red x at the top right. The software will still keep you logged on leading to license issues if the Log Off button is not utilized.

[Help]

Help

1. This button will open up the Viztek resources website. Here you will find numerous guides and manuals. Specifically look for Opal related guides, and print them out at the office's discretion.

f. Sensor Positioning detail

- When placed in the left lateral slot the image area should drop below the level of the top of the base so the foot is fully seen on the image. Sensor should be straight.
- Lift sensor by both available handles.
- For AP or DP projection, slide the sensor into the slot beneath the Plexiglas top with the handle facing towards you.
- To move the sensor to the right lateral slot, pull the sensor out by handle and place in the slot with the handle towards the front as well as the cables. Make sure the cables run along the front of the base out of the way to avoid tripping.

g. Patient Positioning with Bi-Directional unit

- AP or DP feet can be obtained by facing the X-ray tube. The knob on the side of the XCel unit may be switched from 0 degrees to 15 degrees to shoot a patient AP facing forward instead of facing the side. (The Sensor does not rotate within the base as a plate used to be able

to, so this is why it is available).

- Recommend that oblique feet be obtained in the same manner, except at 0 degree for the tilt feature. They will get better results by turning the foot in 45 degrees rather than angling the tube 45 degrees in to the foot. If they do not want to do this, keeping the foot flat, you will want to have them position the patient's foot closer to the tube head, left or right. This will case the actual x-ray captured center on the plate vs. off to the side.
- Laterals can be made by having patient straddle the sensor in lateral slots. If patient is having difficulty straddling Sensor, have patient straddle lateral slot, and then slide Sensor into position.

Additional Resources

You can find an up to date Podiatry Technique Chart on the 20/20 Imaging website:

http://www.2020imaging.net/support/support_dealers.php

More guides for the customer are available as well:

http://www.2020imaging.net/support/support_selfhelp.php

7. Rules to Remember

20/20 Imaging P-DR Morning Startup Checklist

1. Ensure the X-Ray Server (desktop) is powered on.
2. Powering on Equipment (in this order):
 - Power on P-DR Panel, to do so, turn switch to “I” on the A/C Adapter (ensure it is plugged in also)
 - Power on X-Cel X-Ray Machine, power switch is located on control box, will illuminate
 - Power on X-Ray Acquire (laptop)
3. Log into “Opal-Rad/Spectacle Study List” software with designated username/password
4. Click the “Create New Study” button near the bottom.
 - If the patient demographics box appears, the system is communicating correctly and ready to take X-Rays.
 - If you receive a message box; “No acquire panel available”, double check the above, if you still receive the message, call 20/20 Imaging support for assistance (866) 734-6234.

20/20 Imaging P-DR Rules to Remember

v2.3.3.X (updated Apr 2012)

Sensor Positioning

- * Always keep the Sensor in the same relationship to the X-ray tube with the handle placed to the front of the X-ray base –never pointed toward the ceiling or back.
- * With a portable or wall unit, it is still imperative to keep the Sensor and X-ray tube in the same relationship. Your Applications Specialist has instructed you in this correct position.
- * If using a portable unit, it is very important to take images at the same distances every time

Collimating

- * Collimate to the area of clinical interest, the useful beam needs to be limited to this area.
- * Collimate evenly and symmetrically.

Acquiring X-Rays

- * Optimum X-ray settings are determined at the time of installation, a guide with each view and settings it is to be radiated at is noted. If your X-Rays do not look correct in any way please call support for help (866) 734-6234.
- * Image adjustment is available in the viewer by the doctor after they have been submitted.

* Adjust the auto cropping lines if necessary to eliminate the back ground clutter, once done, click ‘Apply’.

* Double check to ensure each view you have selecting is correct, including if it is a L/R view, if you selected the wrong view, pick the correct view on the left, and click ‘Apply’.

StudyList

* When closing the OpalRad software, always log off by clicking on the Log Off icon. This assures your session is terminated.

* Upon first boot up of any PC, when opening a study to view x-rays after double clicking on study to open, be patient as Viewing software will take generally 2-5 seconds to initially load, and sometimes as much as 5-15 seconds on older machines.

General

* Plexi-Glass weight limit: 350lbs.

* Be sure Tube Head is left in upright position over night to decrease amount of stress on balancer.

* Check the image backup as much as possible on the server (desktop), if you do not know how to do this call support for help (866) 734-6234.

* Do not shut down the X-Ray Server at night or on the weekends, however, be sure to restart it at least once a week.

* At the end of the day: Turn off the X-Cel X-Ray unit, turn off the P-DR panel A/C adapter, shut down the Acquire (laptop).