



VIZION DR + CALIBRATION GUIDE



Calibrating ViZion DR +

This guide will provide you with detailed instructions on how to calibrate your ViZion DR + panel once the installation process has been tested and verified.

To Start the Calibration Process

1. Power up the system
2. Start the Acquisition (Scanner) Interface: this can be accomplished using either **a** or **b** below.
 - a. Stand-alone Launcher
 1. Run Command enter `c:\opal\bin\OpalUAIStandalone.exe` – **Figure 1**
 2. Left click *Launch* on the UAI Session Launcher – **Figure 2**
 3. Proceed to **STEPS TO CALIBRATE** page 4

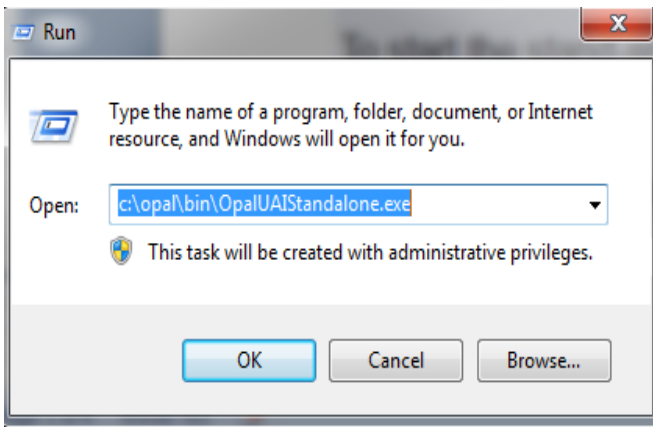


Figure 1

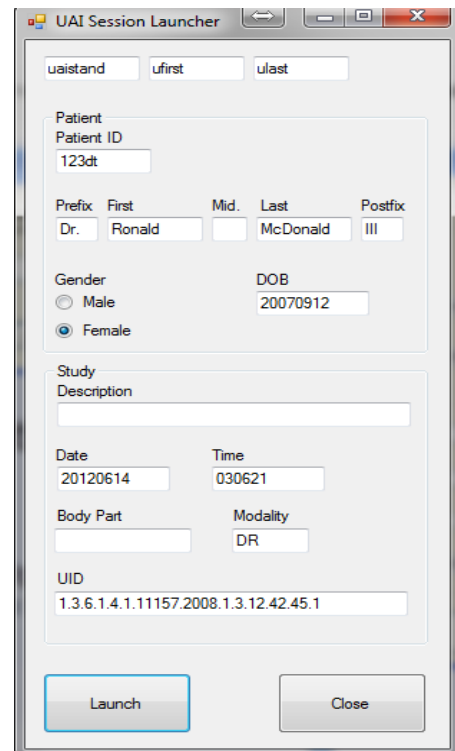


Figure 2

b. Sign into Opal .

1. Left click the Opal Study Icon
 - a. User Name: siteadmin
 - b. Password: Consult your PACS Administrator **Figure 3**
2. Select test study
3. Left click “Add New Image”
4. Proceed to STEPS **TO CALIBRATE** page 4.



Figure 3



Figure 4

Steps to Calibrate

1. Once the Acquisition Interface is activated select Options **Figure 4**
2. Authorization Required box prompts for a password
“adc4me” **Figure 5**
3. Select the Device Configurations tab. **Figure 6**
4. Highlight Default under Configuration Pool to activate the Acquisition Device.
5. Under the Acquisition Device, select the device you wish to configure from the list.
6. Scroll down the list under device options section , under the connectivity section select the appropriate com port under Serial Link, and the appropriate network adapter under ethernet link (ie. com1 , realtek PCI GBE)* . **Figure 6 & 7**

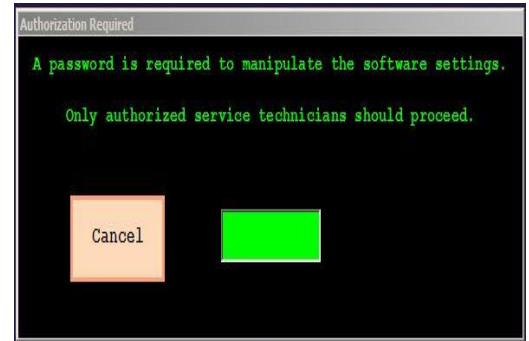


Figure 5

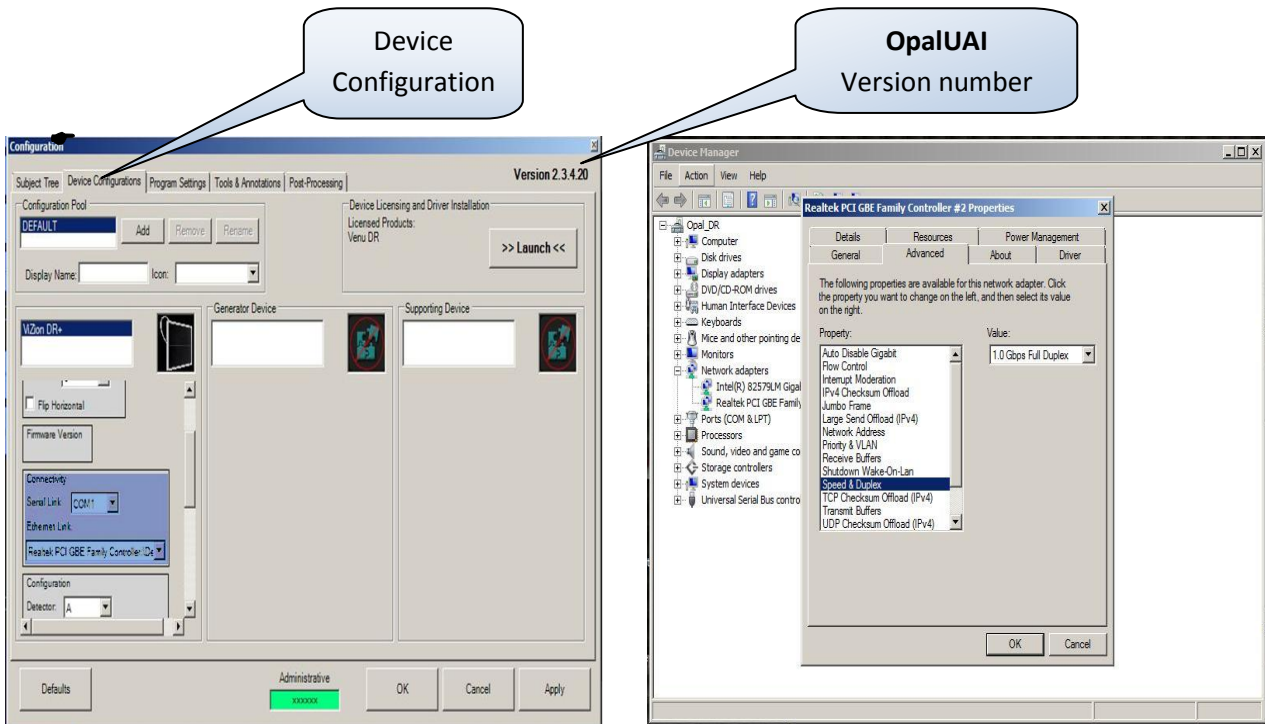


Figure 6

Figure 7



***If Ethernet Link Dropdown field is empty , the drivers are not installed be sure the NIC card is configured as 1.0Gbps full duplex. Figure7**

7. Scroll down the list further, locate the calibration utility section, click **Launch** to begin the **Calibration Wizard**. **Figure 8**

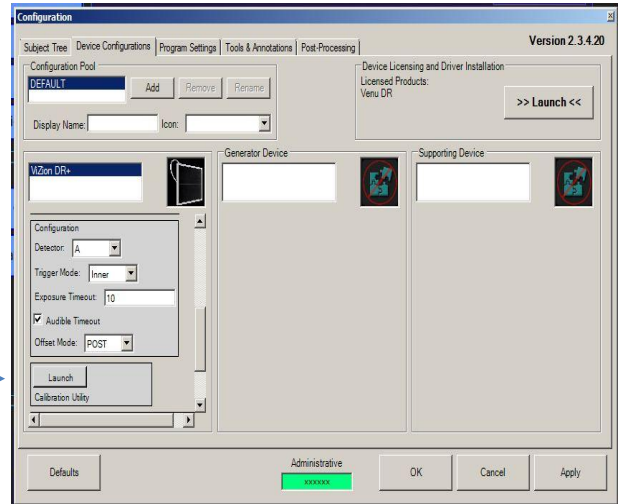


Figure 8

8. The “Welcome to the ViZion DR + Calibration Wizard” window appears, read and complete each tab, selecting **Next** to proceed. **Figure 9**

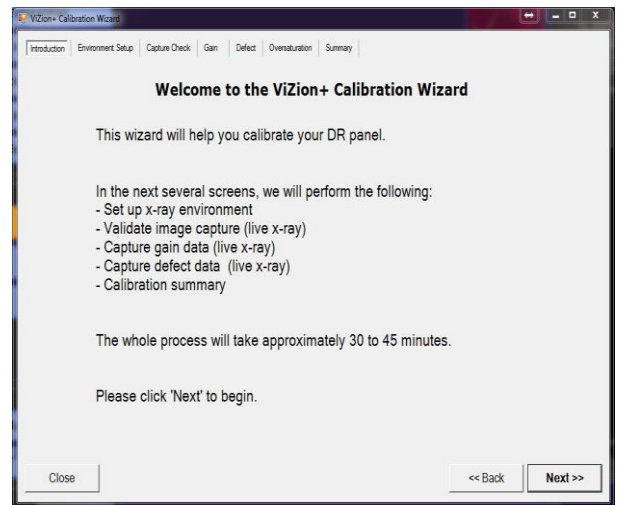


Figure 9

9. **Environment Setup tab:** Complete each item using no grid, grid-cap, table-top, or bucky between the generator and the flat panel detector, select **Next** **Figure 10**

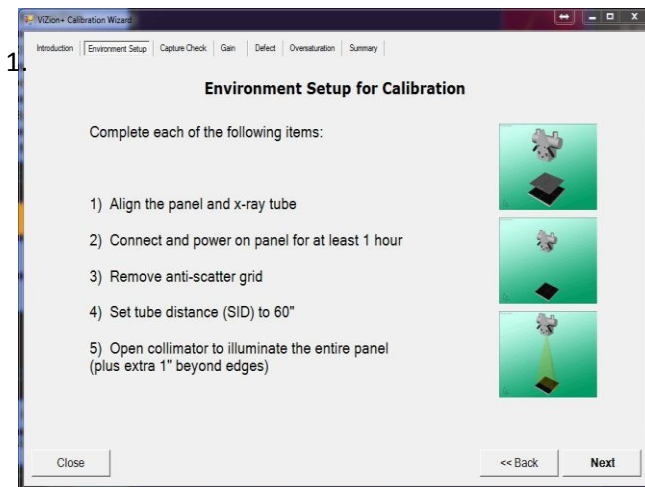


Figure 10

10. **Capture Check tab:** set your x-ray generator to 70KVp 3.0mAs, open your collimator 1" past the edges of the panel to ensure full coverage of the flat panel detector, select **Acquire**, and take an expose during the 10 second countdown. The black boxes will display pre-calibrated images, once completed click **Next**.

Figure 11

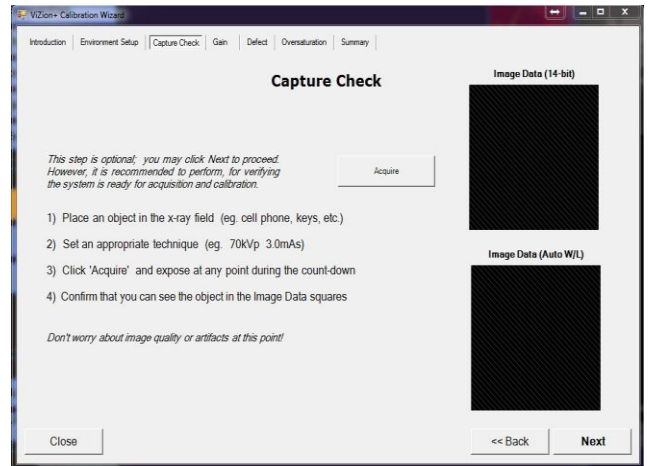


Figure 11

11. **Gain tab:**
OpalUAI v2.3.4.21 Remove 500 and 2000 from the directives fields, adjust exposures to 2 Exposures per Target, and adjust Target Tolerance to 300 Target Tolerance. Select **START** and fire tube head within all targeted fields. **Figure 12**
OpalUAI v2.3.4.22+ Removal of the 500 and 2000 fields have already been adjusted, as well as the Target Tolerance, Select **START** and fire tube head within all targeted fields. **Figure 12**

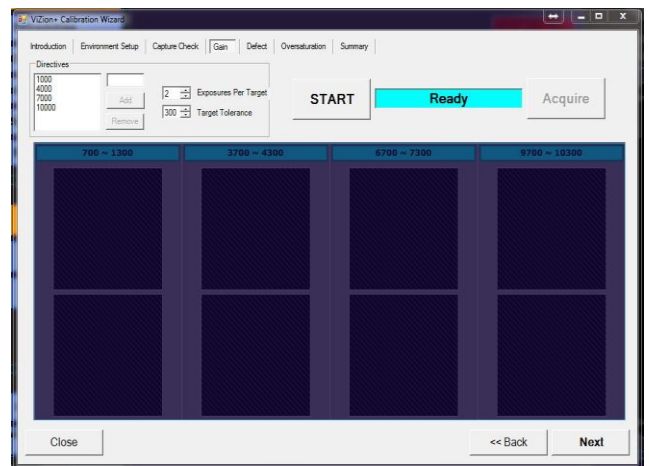


Figure 12

Sourceray 130 Mobile Cart

Using an SID of 60" adjusting up or down as needed to hit targeted fields

Exposure Range	kVp	mAs	Time
700-1300	70	0.9	.06
3700-4300	70	3.0	.20
6700-7300	70	5.2	.35
9700-10300	70	8.2	.55

12. **Defect tab:**

OpalUAI v2.3.4.21: adjust Bright Tolerance to 300 Bright Tolerance, select **START**, once Dark Frames are complete, select **Acquire**, and fire shots within Targeted field. Note that it does not take the same amount of radiation to reach the desired exposure level because offset subtraction was not previously in effect on other tabs. **Figure 13**

OpalUAI v2.3.4.22+: Bright Tolerance is already adjusted, select **START**, once Dark Frames are complete, select **Acquire**, and fire shots within Targeted field. You will notice that it does not take the same amount of radiation to reach the desired exposure level because offset subtraction was not previously in effect on other tabs. **Figure 13**

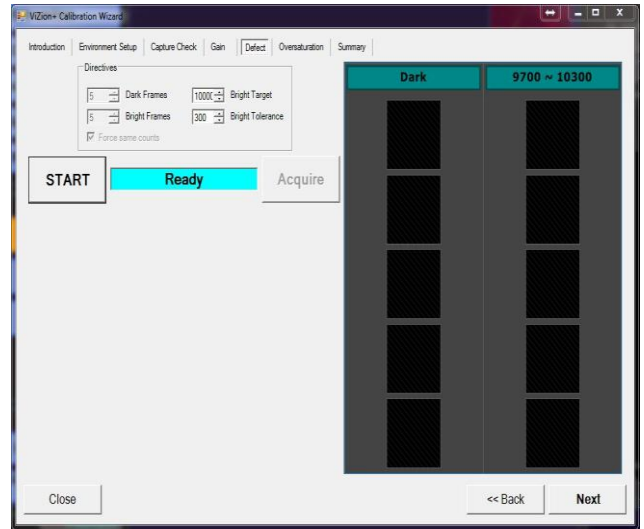


Figure 13

13. **Oversaturation tab:**

OpalUAI v2.3.4.21: select **Acquire** button, Expose x-ray with the same level used to achieve the 9700-10300 target field in Gain Tab.

OpalUAI v2.3.4.22+: select **Generate** and wait up to 1 minute for file to be generated. (Do not take an exposure) **Figure 14**

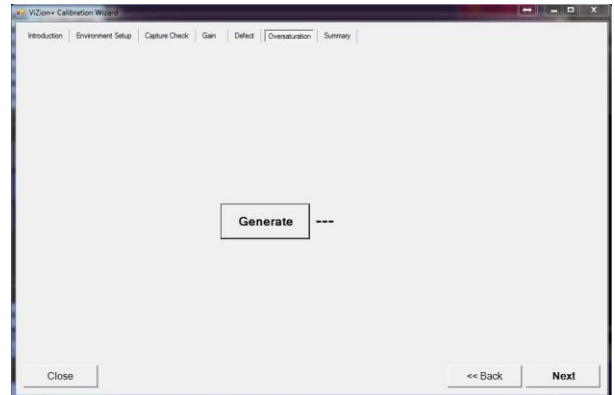


Figure 14

14. **Summary Tab:**

OpalUAI v2.3.4.21: The summary page will be completely blank this is normal. **Figure 15**

OpalUAI v2.3.4.22+: The calibrated fields will be populated, the blank fields are normal; these fields were not needed during the calibration procedure. **Figure 15**

15. After calibration is complete click **Apply**, then **OK** buttons on Configuration windows.

16. You are now ready to acquire a few test images, use proper techniques, and inspect for image quality.

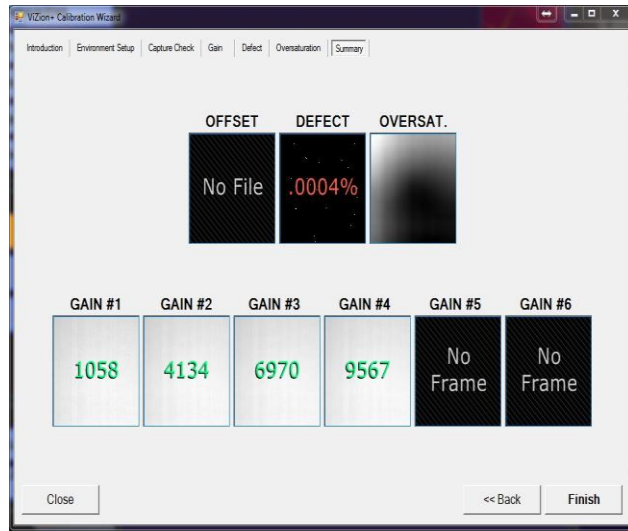


Figure 15

Troubleshooting and Advance Features

Note: The ViZion DR + 1417p prime panels require some settings to be set prior to calibration. If settings are not put in place prior to calibration you will experience a randomly occurring pinstripe pattern during image acquisition, it is recommended you calibrate with the settings below. [Figure 16](#)



Figure 15

Auto-Clear - The scrubbing feature of auto-clear is recommended to be disabled on all panels, but during the calibration procedure of the ViZion DR + 1417p prime panel you will need to keep it enabled. After the calibration procedure it is recommended you turn auto-clear back off. [Figure 17](#)

Max Exposure Duration – With the max exposure duration set as auto, you allow the panel to decide when to cut off the image from accepting exposure. If the panel sees any downward trend during an exposure it stops the panel from accepting image then reinitiates accepting image this causes a random line artifact. During the calibration of the ViZion DR + 1417p prime panel this setting needs to be set as auto, after calibration is complete you can return the setting to your desired exposure window. [Figure 17](#)

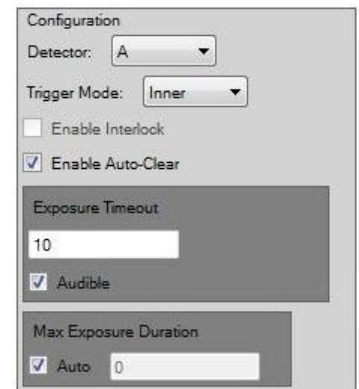


Figure 17