




VIZION DR CALIBRATION GUIDE



Calibrating ViZion DR

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

 *Note: These instructions address both **Retrofit** and **Retrofit with Generator Integration** installation. Please identify which scanner interface applies to your installation during the actual calibration process, as that process is slightly different.*

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

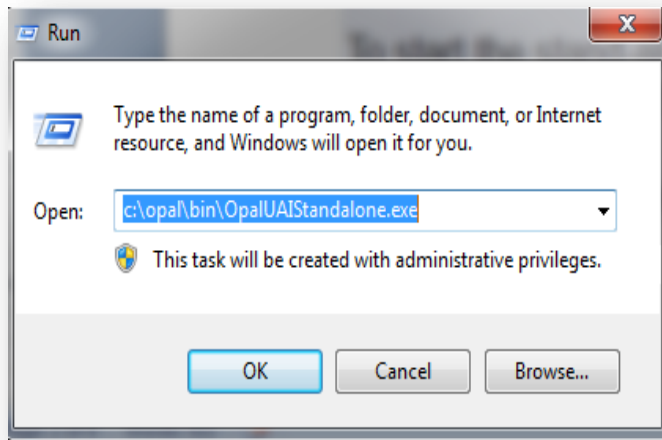


Figure 1

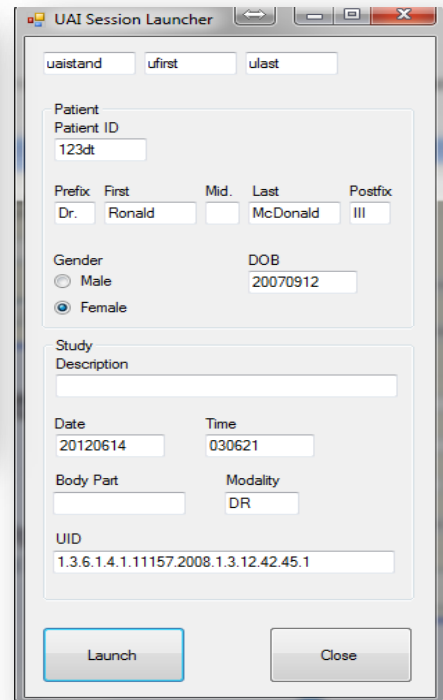


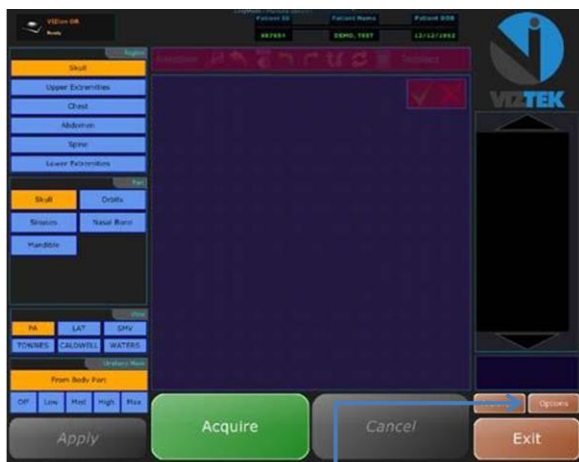
Figure 2

b. Sign into Opal .

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



Figure 3



Retrofit Scanner Interface



Retrofit Scanner Interface with *Generator Integration*

Figure 4

Steps to Calibrate

1. Once the Acquisition Interface is activated select Options – Figure 4
2. Select the Device Configurations tab to begin the calibration. – Figure 5
3. Highlight Default under Configuration Pool to activate the Acquisition Device. –Figure 5
4. Under the Acquisition Device, select the device you wish to configure from the list. – Figure 5
5. Scroll down to find the Calibration Utility. – Figure 5
6. Left click Launch to activate the Calibration Utility Instruction. – Figure 5

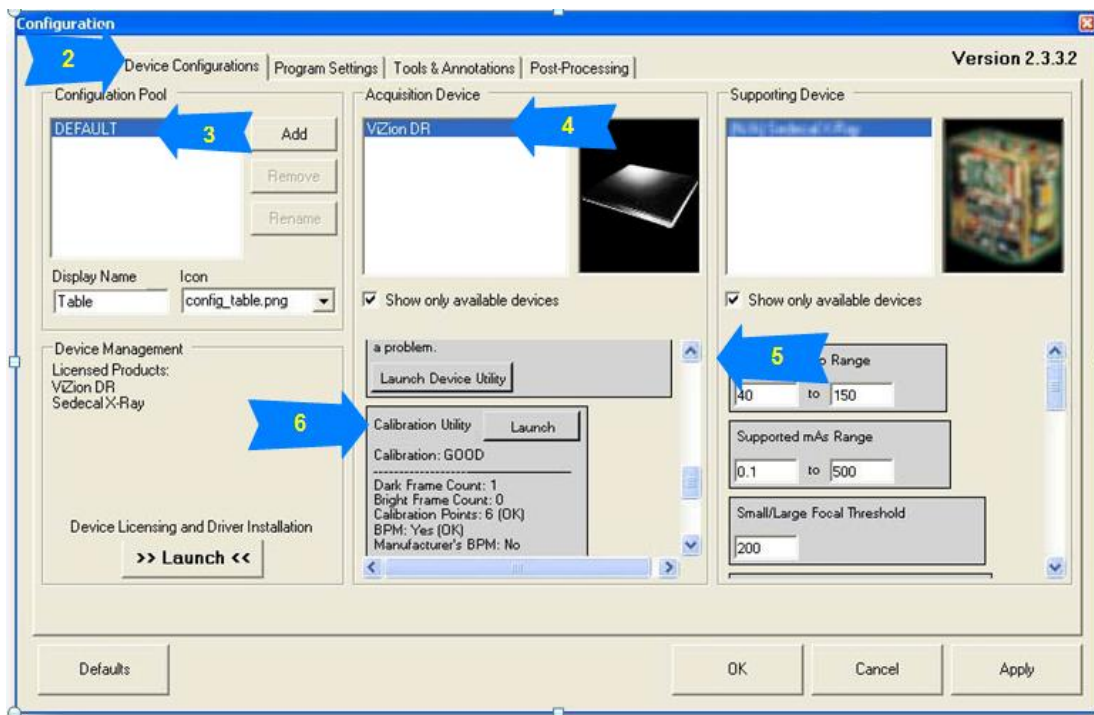


Figure 5



IMPORTANT: If you are calibrating a **Retrofit with Generator Integration** then you will need to manually set the kVp, mA, ms/s, and mAs after *each* exposure, on the Scanner Interface dials

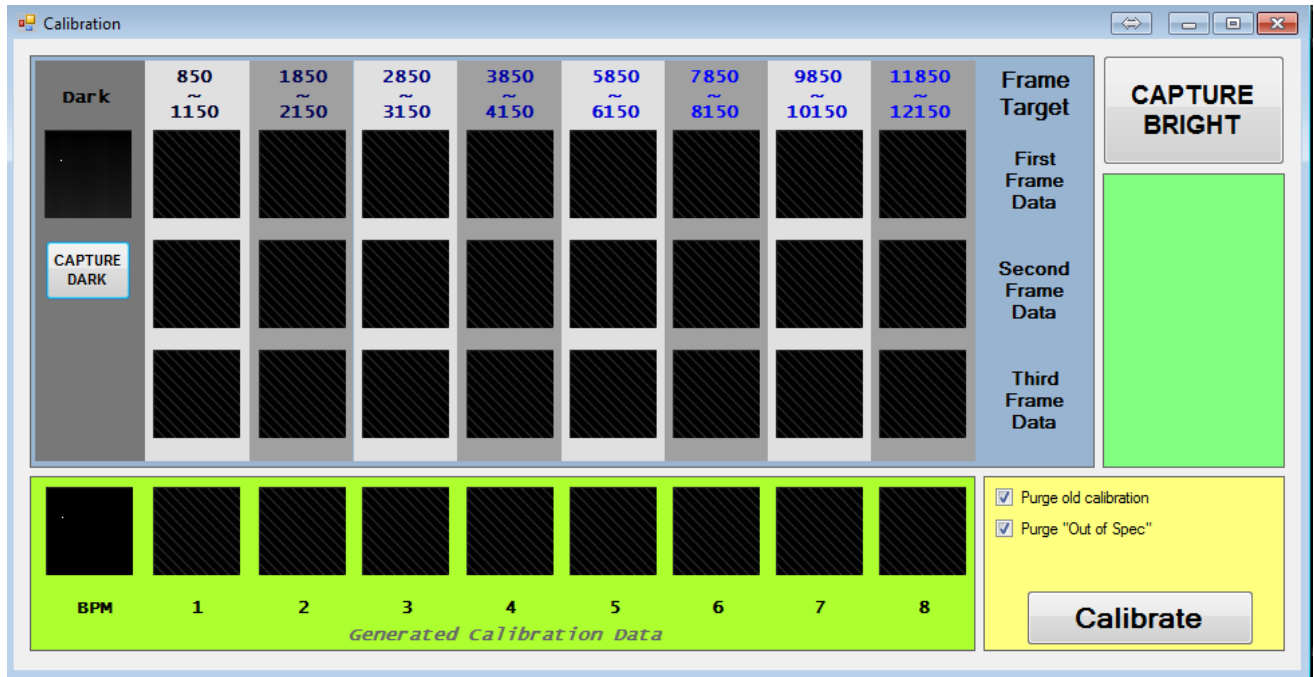
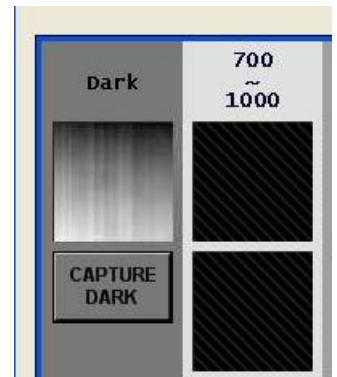


Figure 6

7. The Calibration utility window will launch in a new window. Depending upon the panel connected (i.e. 14x17 17x17) there will be different grey value fields to make exposures. – Figure 6
8. Dark Field – click the **CAPTURE DARK** button, wait for exposure timeout to complete and click **CAPTURE DARK** again and compare the dark frames making sure there was not any major differences.
9. Capture Bright exposures – Figure 7



The goal is to adjust the technique and expose the panel enough times to fill in every range square. For this reason you will need to test different techniques to find each range. This is a trial and error process to provide the most accurate calibration. You must wait the countdown between bright frame captures to ensure panel stabilization and that panel gate scrubbing has completed.

- Exposing the DR Unit should occur at approx. 60 inches
- Collimated to expose the entire panel
- There should be no grid over the DR panel.
- The DR panel surface should not be obscured by any bucky or tray brackets or housings.
- Ensure that the entire surface of the panel is exposed.

Configure your X-Ray output to **70kVp** for **ALL EXPOSURES** and begin with **.25 mAs**. Judging the output value based on the initial mAs setting will assist in adjusting the technique. kVp should only be adjusted when mAs does not allow enough fine tuning to capture index numbers for a given range. You should vary kVp as little as possible from the starting value of 70kVp.

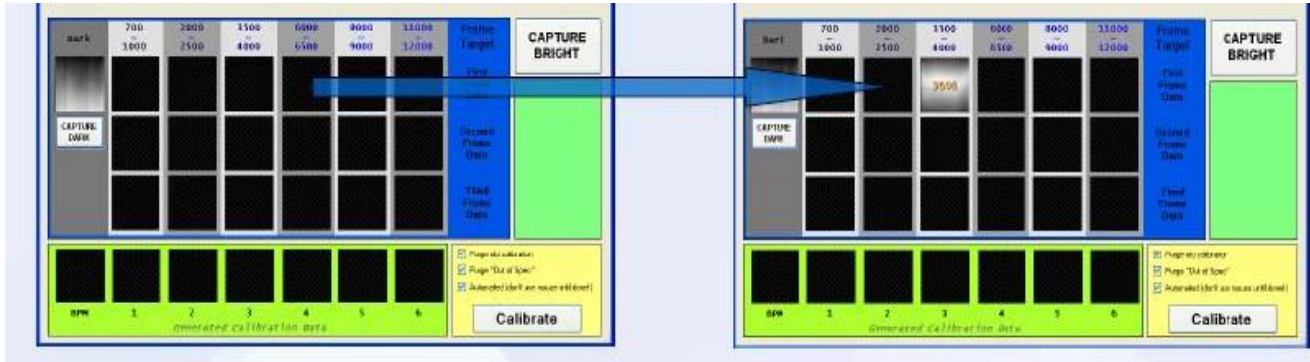


Figure 7

10. Repeat the Capture Bright procedure until all the columns are populated, once started in a field do not make any adjustments to KVP or MAS until that field is complete, use the KVP adjustment to make slight adjustments use MAS to make larger adjustments. – Figure 7
 - For the Best Quality and Accuracy, the manufacturer recommends
 - ✓ Complete all 12-24 exposures
 - ✓ Waiting a minimum of 30 Seconds between exposures

NOTE: The highest index value column may be excluded if the thumbnail images appear oversaturated or the index value of the exposure does not change. Three values with the exact same number in the final column or a thumbnail that looks drastically different from the previous exposures.



11. If you create any *Out of Specification* exposures they should be deleted.
12. Left Click *Calibrate*, when all 12-24 recommended exposures have been completed.

Figure 8

13. The lower calibration positions will fill with calibration image data to complete the ViZion DR calibration process. – Figure 9
14. Close the Calibration Instructions window by left clicking the “X” at the top right corner of the window.
15. Left click the OK button on the configuration display window.
16. Click the exit button on the ViZion Acquisition (Scanner) Interface.

PLEASE NOTE: It is recommended that a semiannual calibration be performed for continued accuracy of exposure.

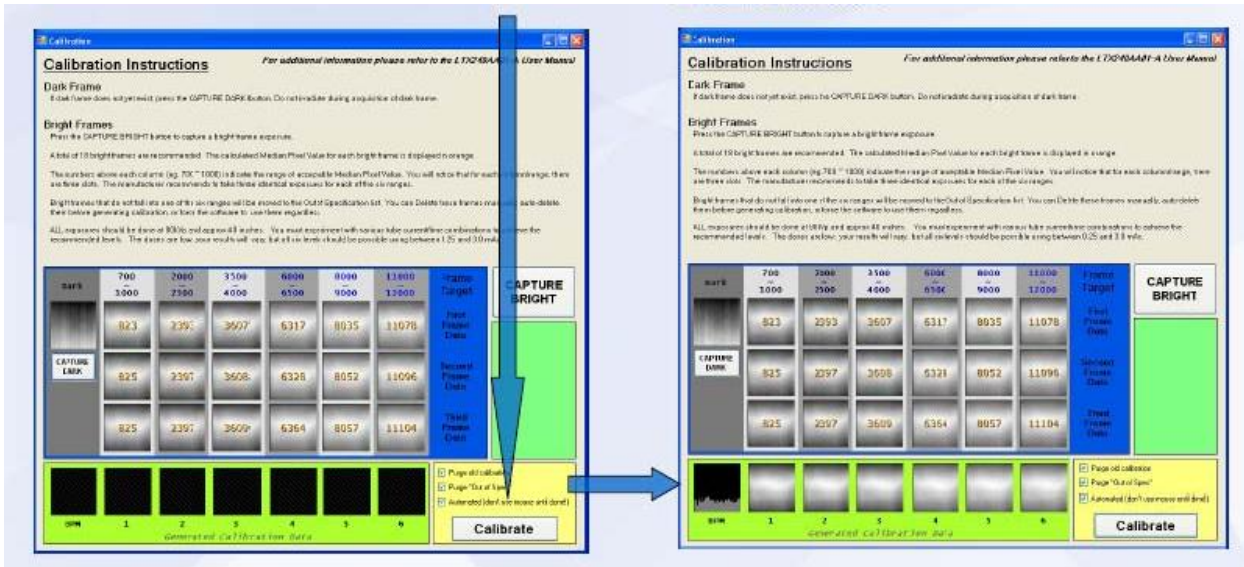


Figure 8

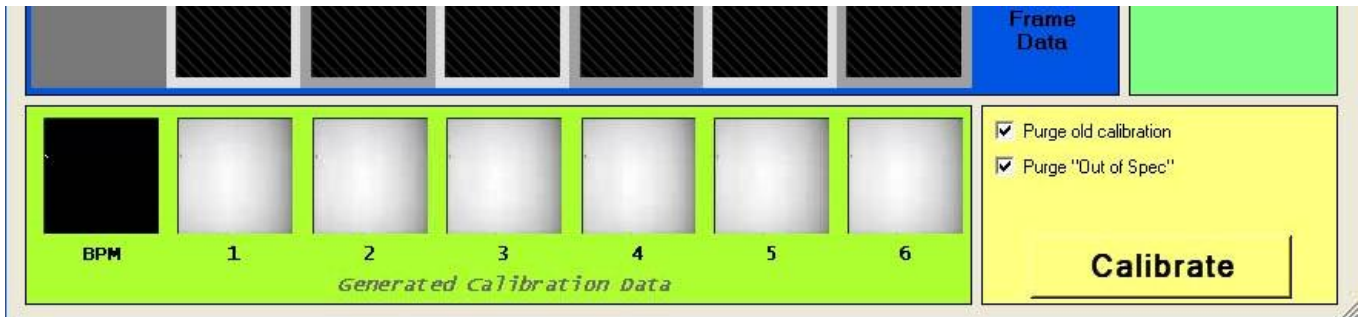


Figure 9