Troubleshooting Guide
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I: Licensing / Registration

After launch Prof.Suni from the icon on desktop, you will see the following Trial Version Licensing Information screen.

Click on Register button to get to the next screen:

Enter the license 9C50-685A-****, user name information, skip STEP 2: ACTIVATION CODE and click on DONE to get into the program.
II: Vista: Repeat Registration Problem – Trial Mode

Symptoms:

After registering the software in Vista, and re-launches the program, it asks for registration information again.

Solution:

The problem occurs because the user does not have the administrative privileges necessary to create registration information. To properly register the software, the user should right click on ProfSuni.exe and choose ‘Run as administrator’.
Re-enter the registration number 9C50-685A-***, user information and skip STEP 2: ACTIVATION CODE, then click **DONE** to access the program.
III: Sensor Capture Error – Suni hardware could not be found!

Problem:

After position the sensor and activate the unit, the following message is displayed.

This error message can be generated in one of the following situations:

a) The USB 2000 box is not recognized by the computer
b) The USB 2000 driver is not installed
c) Dr. Suni Plus sensor is not properly plugged in
d) The USB 2000 firmware files need to be updated

Solution:

a) The USB 2000 box is not recognized by the computer
   - Make sure the USB 2000 box is plugged in to the back USB port and the computer recognized the hardware.
   - Check the Windows Device Manager to verify if the USB driver was installed successfully.
If the USB 2000 driver was NOT properly installed, a device named **USB device** marked with a yellow exclamation mark will appear under **other devices**.

b) The USB 2000 driver is not installed

- Insert the Prof.Suni disc in the CD-ROM drive. //The driver is in *D:\Drivers\SDR2000*

- Double click on **USB Device** in **Other devices** then follow the ‘Found New Hardware’ wizard to install the driver.
Follow the prompts to finish the driver installation, when it’s done successfully, Digital Radiography Device (SDR2000) should be listed under Device Manager.
c) Dr. Suni Plus sensor is not properly plugged in
   - Unplug the sensor and re-plug it back in, make sure the connector pushes all the way in.

d) USB 2000 firmware files not updated
   - Right click on DrSuniNL.exe icon on desktop, select Properties→Find Target and make sure the SuniUSBII.SED file is dated 6/10/09 or newer.

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**Note:** Suni hardware USB2000 and Suniray currently support 64-bit operating system; please refer to the readme.txt file in the TEC_Driver folder in our FTP site for proper installation instructions.
IV: Abort Sensor in Middle of Layout Series

Symptoms:

When trying to switch sensor or stop in the middle of layout capturing, the following message is displayed:

![Capture Series](image)

Cause:

User did not quit image captures properly or completed the previous captures before closing it.

Solution:

Finish the image capturing or stop layout series properly by clicking on the red ‘X’ on the lower bottom left hand corner to abort capturing.
V: Sensor Self Triggering

Problem:
The sensor triggers by itself without any radiation induces.

This problem occurs in one of the followings:

a) Sensor enclosure splitting/opening
b) Sensor cable(internal) or connector damaged
c) Connector on USB 2000 box bad
d) Noise Interference

Solution:

a) Sensor enclosure splitting/opening
   ● Inspect the enclosure of the sensor and make sure there’s no splitting or cracks on the sensor.

b) Sensor cable(internal) or connector damaged
   ● Switch out the sensor using the same USB box. If the new sensor works, the problem most likely to be the first sensor; If the problem persisted, then it might not be the sensor.

c) Connector on USB 2000 box bad
   ● Switch out the USB box using the same sensor. If the other box works, then continue testing to make sure problem went away.

d) Noise Interference
   ● Go to Tools→Options→SuniUSBII→Detection Sensitivity and Threshold, lower the sensitivity value by 1 until no self-trigger is observed.

Or
- Go to Tools → Options → SuniUSBII → Detection Sensitivity and Threshold, increase threshold value by 2 until no self-trigger is observed.

(Default is 15)  

Password: dentalimage
VI: Sensor Not Triggering

Problem:

When attempting to capture an image, screen stays at green ‘Sensor Ready’ mode even after the radiation induces.

This problem occurs in one of the followings:

a) Inconsistent or no radiation from the x-ray machine

b) Sensor not securely connected to the USB box

c) Insufficient power from computer USB port

d) Low Sensor Detection Sensitivity

Solution:

a) Inconsistent or no radiation from the x-ray machine

- Increase the exposure settings or change to another x-ray machine to see if the problem persisted.

b) Sensor not securely connected to the USB box

- Unplug the sensor and re-plug it back in, make sure the connector pushes all the way in.

c) Insufficient power from computer USB port

- Make sure the USB is plugged in the back of the USB port and/or use a powered USB hub for power enhancement.

d) Low Sensor Detection Sensitivity

- Go to ToolsÆOptionsÆSensorÆSuniUSBIIÆDetection Sensitivity and Threshold, increase Detection Sensitivity value by 1 until trigger is observed. (Default is 4) password: dentalimage
VII: Prof. Suni Software Upgrade Error

Symptoms:
After downloaded the software upgrader and trying to run it, the following message is displayed.

Resolution:
Make sure Prof. Suni program is closed in all computers (local and network) before running the software upgrader.
VIII:  Out of PAC License Warning

Symptoms:

When starting Prof.Suni, licensing warning information is displayed.

Cause:

The user has used/exceeded the number of licenses were purchased for the software.

Resolution:

To resolve licensing problem, the user must either purchase additional licenses or reallocate previously allocated license by selecting license from the Licensed Computers listing and then click on Reallocate License button.
IX:  Image Quality – Grainy (or “noisy”)

Problem:
Image appears to be too light, grainy and lack of contrast.

Sample grainy image:

Cause:
Grainy (or “noisy”) image generally causes by under exposed.

Solution:

a)  Increase the exposure setting from the X-ray unit, and/or decrease the distance between the unit and the sensor.

b)  Use the image enhancement tools – Brightness and Contrast. In general, brightness/contrast enhancement changes the brightness and
the contrast of an image in order to try to improve the overall dynamic appearance of an image.

- **Real time B/C** – *This feature can be used to quickly modify the appearance of an image.*
  
  - Open an image, go to Enhancements and change the B/C of the image by clicking and dragging in the main area of the control. To set the B/C back to normal, you can either double click or right click on the control.

- **Automatic Brightness / Contrast** – *This feature automatically tries to determine the optimal brightness/contrast settings for the image.*
  
  - Click on ‘Automatic Brightness/Contrast’ to adjust the brightness and contrast of the image. To set the brightness and contrast back to normal, click on ‘Undo All’.

- **Brightness / Contrast** – *This feature allows you to manually adjust the brightness and contrast of the image. After define the optimal B/C values, and then you can apply them to the pre-filters.*
  
  - Go to Tools→Options→Sensor→SuniUSBII→Brightness and Contrast and enter the optimal B/C values then click OK to save it.

**Tips:** Presetting Brightness to -10, Contrast to 10 and Gamma to 0.7 usually a good starting point, however, you can increase/decrease the value based on the result of the image.
**Sensor Options**

**BC adjustments are used to compensate for radiation variations in your x-ray equipment**

**General** | **2000 Image Processing** | **2000 Adjustments** | **SunRay Image Processing** | **SunRay Adjust**

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**Posterior**
- Brightness: -10
- Contrast: 10

**Anterior**
- Brightness: -10
- Contrast: 10

**Gamma Correction**
- Current: 0.7

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* - password protected options

[OK] [Cancel]
X: Image Quality – Dark (or “burned-out”)

Problem:
Image appears to be too dark, or teeth appear to be jagged.

Sample burned-out image:

Cause:
Dark (or “burned-out) image generally caused by overexposed.

Solution:
Try turning the radiation down a notch. Most sensors operate best at a time of between 0.08 seconds (about 5 pulses) to 0.16 seconds (9 – 10 pulses). A usual good starting point is at 70kVp, 7mA and 0.10 seconds (6 pulses), and then go up or down one notch at a time from there.

Note: It's generally a good idea, though, to get in a habit of having the X-ray unit in the same position of all your X-ray images, this will ensure consistency.
XI:  Image Quality – Stripes on the Edge

Problem:
Stripes appear on the edge of the image, or “stair-stepping”.

Sample “stair-stepping” image:

![Image of stairs]

 Cause:
Longer warm up pulses from certain AC-head machine.

Solution:
Go to Tools → Options → Sensor → SuniUSBII → Detection and Sensitivity and then increase the integration time by a step of 50ms until no stripes is observed.
Note: Due to the fact that most images have some degree of blurriness (from focus problems or inherent limitation in image taken process), increase the integration time also produces better result.
XII: XVA Crash in The Middle of Layout Series

Problem:

Prof. Suni application crashes in the middle of a layout series.

This problem occurs in one of the followings:

a) User does not quit or complete active image captures before terminating application.

b) User capturing image from a series that previously did not closed.

c) Computer enters suspend mode.

d) Bad USB connection to the computer.

e) Older version of software or USB firmware used.

Solution:

a) Make sure no capturing in progress before terminating application.

b) Close the previous progression before capturing under a new one.

c) Disable the suspend mode of the computer - Control Panel→Power Options

d) Go to Device Manager and see if the USB box driver still recognized. If not, replace the USB cable and/or replace the USB box to see if the problem persisted.

e) Call Suni technical support at 1-800-GET-SUNI to get help with the appropriate software upgrade.