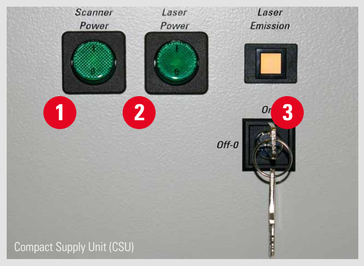
QUICK START – LEICA TCS SP8

System Start Up

Turn on the microscope control box.



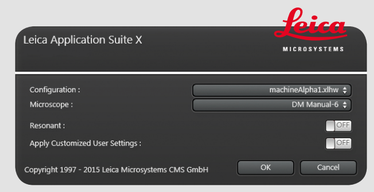
Compact Supply Unit (CSU)

→ **For system configuration with CSU:**
Turn on the PC and await the booting process. Then turn on the power supply for the scanner 1 and the lasers 2 by pushing the green buttons and turn the laser key 3, to open the laser shutter.

Flexible Supply Unit (FSU)

For system configuration with FSU:
Turn on the power supply for the PC 1, the scanner 2 and the lasers 3 by pushing the green buttons and turn the laser key 4, to open the laser shutter.

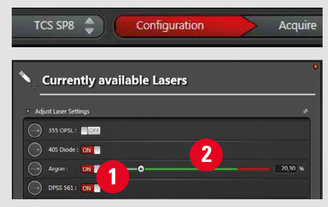
Software Start Up



Start LAS X by double-clicking the LAS X icon. →

Make sure there is the correct selection for **Configuration** and **Microscope**. Turn on **Apply Customized User Settings** to choose **User Settings** saved in a preceding session. Turn off **Apply Customized User Settings** to start LAS X with the default settings. Click **OK** and follow the instructions (i.e. **Initialize Stage**).

Laser Start Up

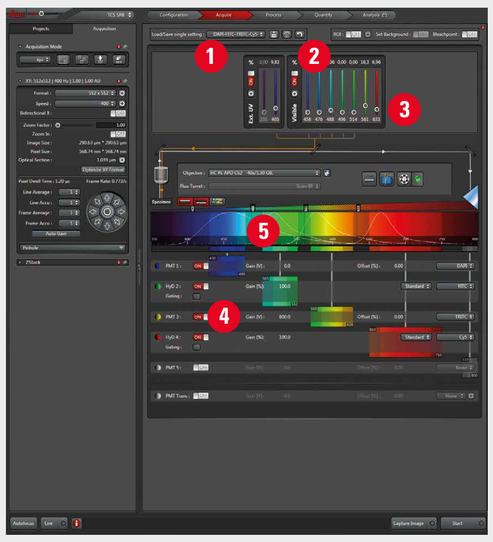


Go to **Configuration**. →

1. Activate lasers (**ON**)
2. Use the slider to set the laser power of the Argon laser (458 nm–514 nm) to 20–30 %.

Image Acquisition

Go to **Acquire**



1. Choose a **single setting** from the list (i.e. FITC/TRITC) and continue with step 6.

   Steps 2 to 5 are automatically set.

If no appropriate **single setting** is available, proceed manually with steps 2 to 5:

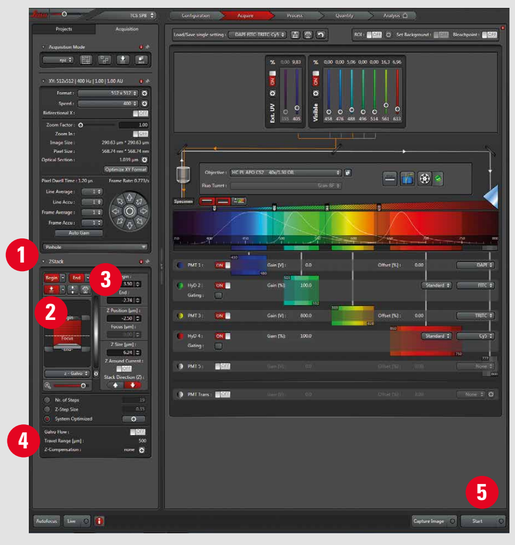
2. Activate lasers (**ON**).
3. Set excitation laser line(s).
4. Activate PMT/HyD **(ON)**, define **Gain** and **Offset.**
5. Position PMT slider at maximum emission.

6. Start **Live** scan*.
7. Click **QLUT** to switch to Glow. Change **Z Position** by turning the respective wheel on the control panel until you get the brightest signal (focal plane).

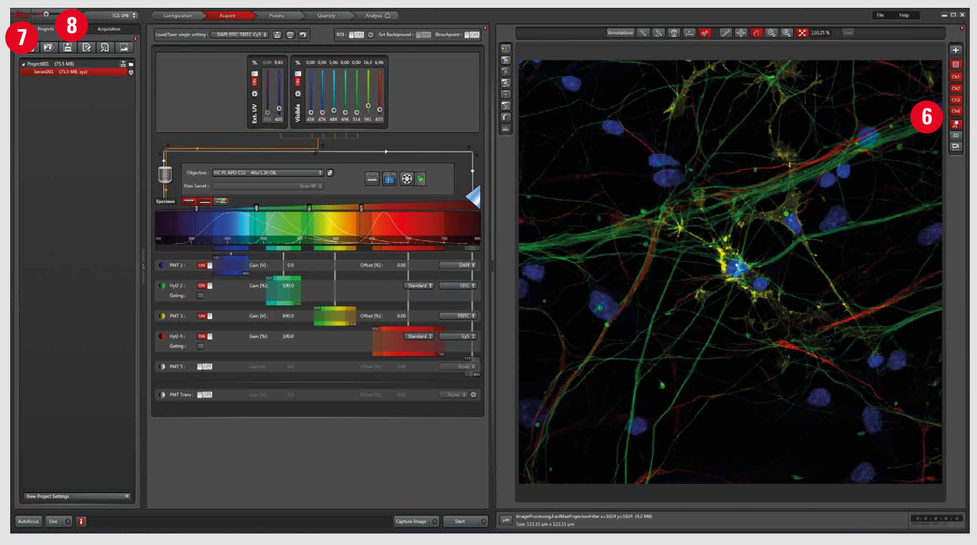
Optimize image settings manually by adjusting steps 3 to 5, until the image contains a few blue (saturated) pixels. Go back to original **LUT** 7 by clicking twice.

8. **Capture Image***.
   Save Project (see below, Z-Series Acquisition).

Z-Series Acquisition



1. Open **Z-Stack** Dialog.
2. Set **Focal Plane.**
3. Set **Begin-** and **End-Position.**
4. Click **System Optimized** to define the number of slices.
5. Click **Start** to acquire the z-series*.



6. Click **Max.** to generate a maximum projection.
7. To save the experiment go to tab **Project** and
8. click on **Save**.

System Shut Down

Follow exactly the sequence described to shut down the system:

1. Deactivate all lasers in the laser configuration window (see Laser Start Up section), wait approx. 5 min. until ventilation of Argon laser has shut-off.
2. Close software.
3. Shut down PC.
4. Shut down CSU or FSU, respectively, in reverse order (see **System Start Up** section).

* **CAUTION!**
Laser light in objective plane from now on. User manual must be strictly observed.

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