Operating SQL Source

- blue fiber should be examined an cleaned if not already inputted to the RIO

- Glasses should be worn at all times Squeeze Light Source is running

- Polarization modulator is incredibly sensitive and should not be moved

- **NOTE:** Amplifier should not be run without power on it

System Component Setup & Settings Checklist

- Settings for RIO (seed pump):

    - 10 mW

    - 1550.014 nm

    - Ultra narrow linewidth setting

- Stabilizer Setup (NewFocus servo controller)

    - Output of Stabilizer feeds input of RIO

    - Error Monitor into Oscilloscope

    - Input is filtered squeeze light (port B)

- OSA

    - Input is post filtered squeeze light

    - GPIB address can be found on monitor for coding purposes

    - VBW to change rate (Hz) if needed

- Temperature Controller

    - should be integrated into squeeze light source system

    - TEC on

    - always start around ~7 when coming up on resonances

- Data Acquisition File

    - Found in MATLAB→ apps tab→ My apps→ OSA Control File

- single scan

- output is a csv

- GPIB address for OSA may need to be changed

- file name for save file may need to be changed

Steps:

1. Check all setup plug-ins and settings above

2. Run seed from RIO at proper settings

3. Turn on Erbium amplifier

4. Using stabilizer, set center offset signal to zero

5. Find stable resonance by tuning thermal control up slowly

6. using stabilizer, set Input offset to zero

7. Lock stable resonance with LFGL (no integrator) (first switch up)

8. If stable (green light), lock second switch (integrated)

   a. PID theory for more information

9. Save Scans as needed