

CZECH TECHNICAL UNIVERSITY IN PRAGUE

FACULTY OF MECHANICAL ENGINEERING

Department of production machines and equipment



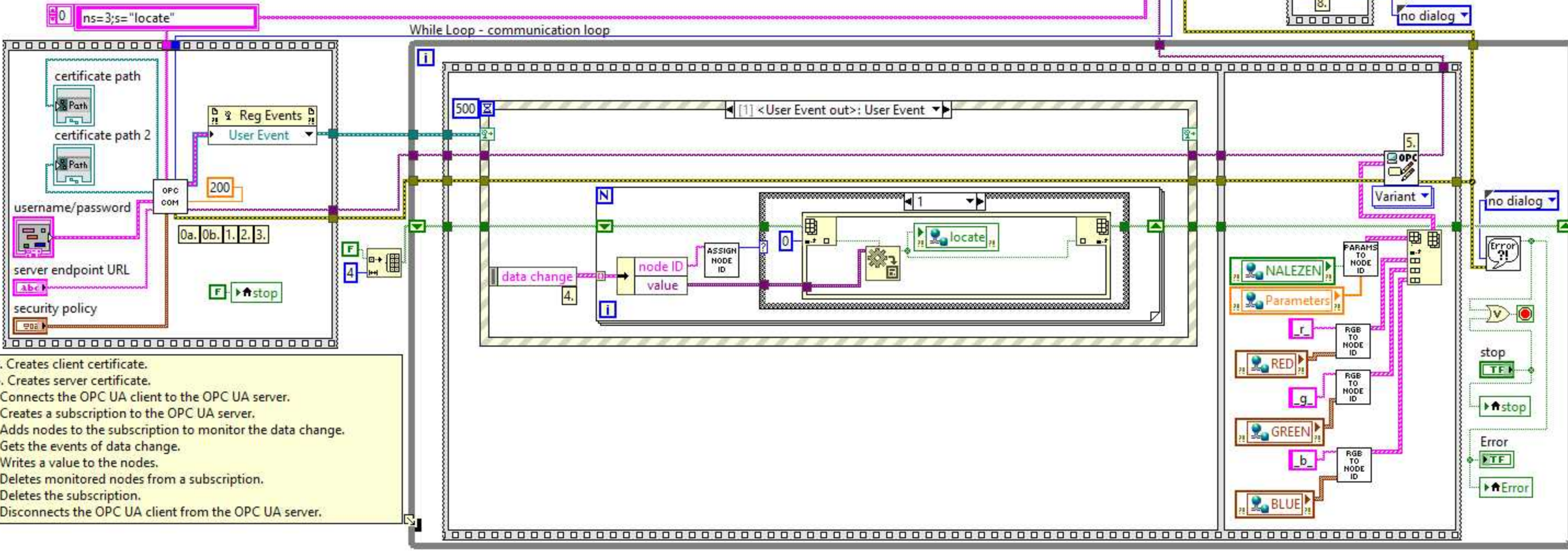
# Bachelor's thesis

**Attachment 2 – Source Codes for LabVIEW**

a. main.vi – complete block diagram

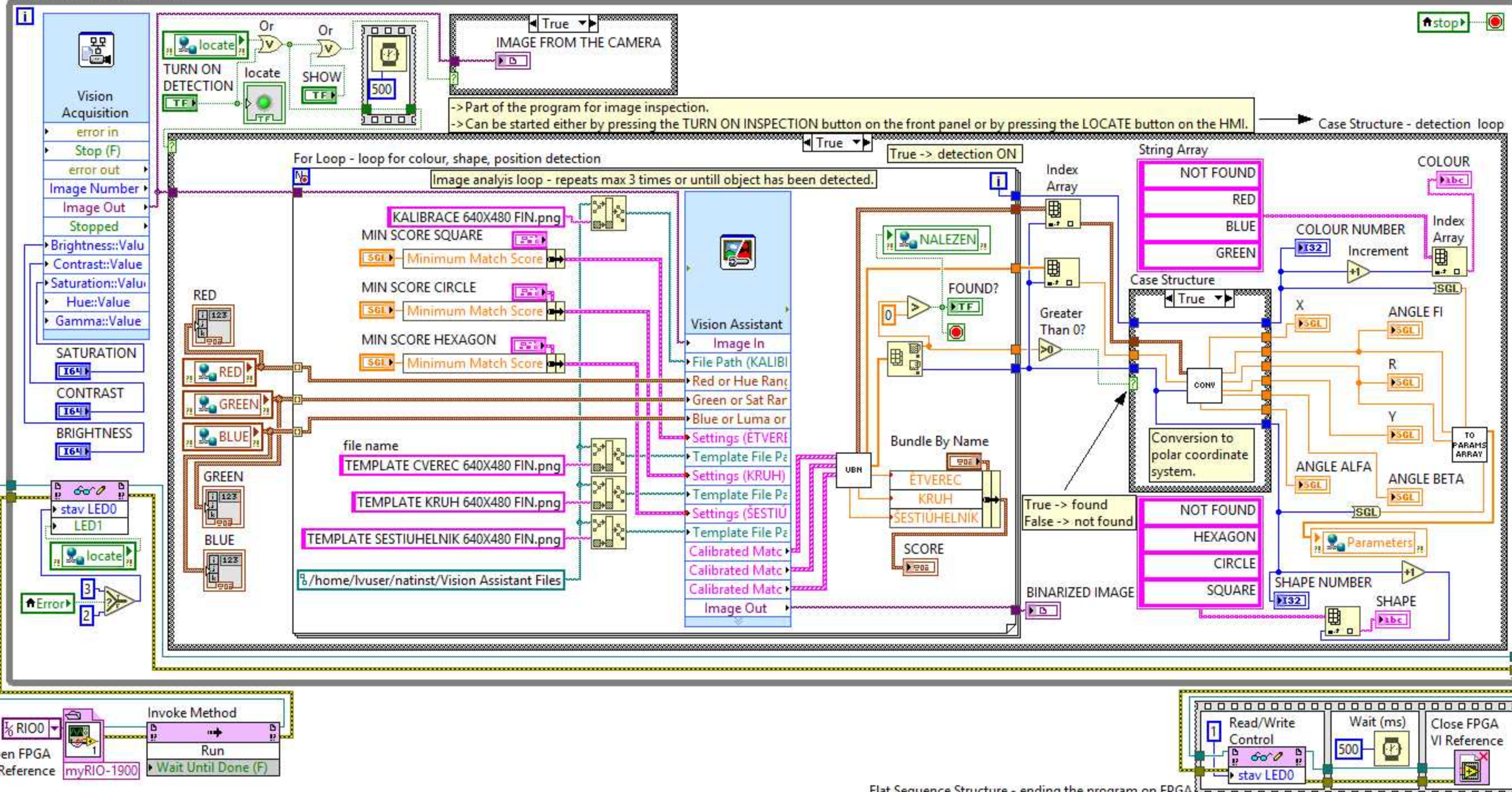


Tab Control



- 0a. Creates client certificate.
- 0b. Creates server certificate.
- 1. Connects the OPC UA client to the OPC UA server.
- 2. Creates a subscription to the OPC UA server.
- 3. Adds nodes to the subscription to monitor the data change.
- 4. Gets the events of data change.
- 5. Writes a value to the nodes.
- 6. Deletes monitored nodes from a subscription.
- 7. Deletes the subscription.
- 8. Disconnects the OPC UA client from the OPC UA server.

While Loop - inspection loop





F NALEZEN

-> Part of the program for calibration.  
-> Turned on by a switch on HMI.

False

False -> detection OFF

Case Structure - calibration

True

True -> calibration ON

calibrate



CALIBRATION

GREEN

RED

BLUE

Green calibration

Blue calibration

Red calibration

HMI buttons to initiate individual colour calibration.

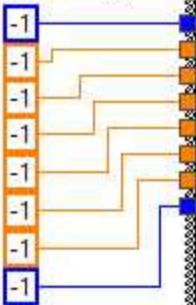
-> Turned on by a switch on HMI.

False

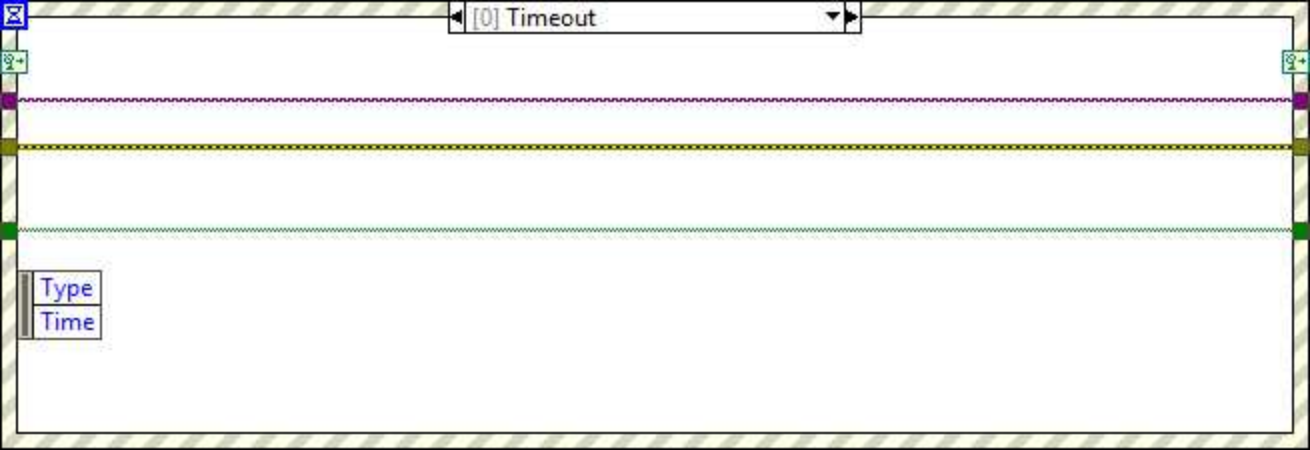
False -> detection and calibration OFF

# Case Structure

False

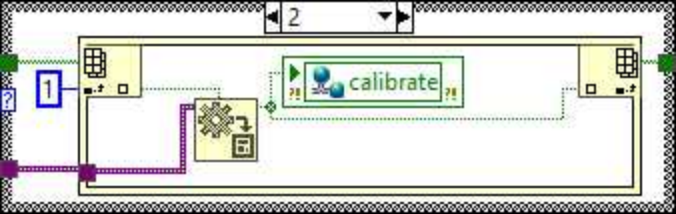


False





◀ Default ▶





2

Red calibration

3



