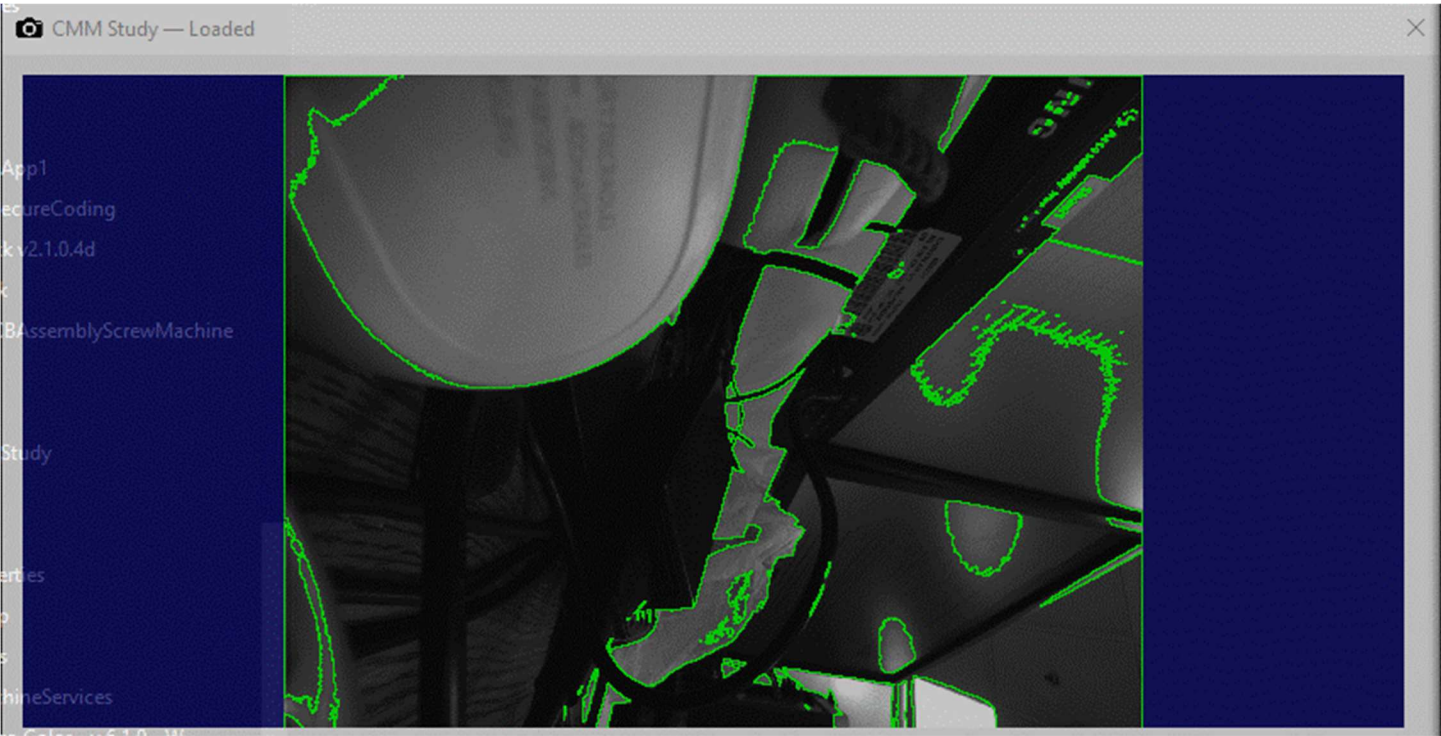


EXCEL INTERFACE TO COGNEX CAMERA APPLICATION

This application is developed for use in a robot camera application where the white dots of a grid are used to calibrate robot positions. The calibration of the robot coordinates occurs in a Microsoft Excel spreadsheet. To speed up the process it is desired that the excel spreadsheet can trigger the camera and import data all from the spreadsheet.

Microsoft Excel VBA:

The Excel VBS incorporates a button, when clicked a JSON trigger is created the C# camera application reads and then triggers the camera. The camera data is then imported from a JSON file to fixed cells.



	A	B	C	D	E	F	G	H
1	846.61	721.3744264		Camera Trigger				
2	835.9	911.1418778						
3	1026.7	253.0699553						
4	949.42	473.4261445						
5	1320.6	869.3121567						
6	1156	1080.688588						
7	860.13	987.3585805						
8	848.99	643.5796537						
9	577.68	1174.368363						
10	13.611	1223.823577						
11	840.73	1124.56087						
12	907.54	1143.889785						
13	844.56	598.1689655						
14	853.82	1110.281481						
15	1483.9	247.9297521						
16	937.79	1130.688073						
17	1269.5	614.8921569						
18	1158	376.4655172						
19	829.21	1044.682741						
20	808.53	1062.18254						

```

    i = i + 1
Next

'Sheets(1).Range("A5").Value = ConvertToJson(items, Whitespace:=2)

' Export json to a file
my_file = Application.ActiveWorkbook.Path & "\trigger.json"
Open my_file For Output As #1
Print #1, ConvertToJson(items, Whitespace:=2)
Close #1

' Sleep
Application.Wait (Now + TimeValue("0:00:02"))

' Check for data
If (FSO.FileExists(Application.ActiveWorkbook.Path & "\blobCenterData.json")) Then
    Set JsonTS = FSO.OpenTextFile(Application.ActiveWorkbook.Path & "\blobCenterData.json", ForReading)
    JsonText = JsonTS.ReadAll
    JsonTS.Close

    ' Parse JSON to dictionary
    'JsonConverter.JsonOptions.UseDoubleForLargeNumbers = True
    'JsonConverter.JsonOptions.EscapeSolidus = True
    'JsonConverter.JsonOptions.AllowUnquotedKeys = True
    Set Parsed = JsonConverter.ParseJson(JsonText)

    For j = 1 To Parsed.Count
        Set myDictionary = Parsed(j)
        For k = 1 To myDictionary.Count
            StartCell.Offset(j - 1, k - 1) = myDictionary.items(k - 1)
        Next k
    Next j

    ' Delete File
    FSO.DeleteFile (Application.ActiveWorkbook.Path & "\blobCenterData.json")
End If
End Sub

```