

# Doktor Jon's – 'TRUSTED'® CCTV Camera Assessment - C1 - Part A

Evaluation 1 / 2 - Date \_\_\_/\_\_\_/\_\_\_ - Lighting Conditions \_\_\_\_\_ Camera No: \_\_\_\_\_

This form is specifically designed to provide a simple straightforward way to evaluate how well a CCTV camera is performing, in relation to fulfilling the requirements for TRUSTED® status - in other words, can it effectively be used for identifying targets (e.g. individuals, faces, vehicle number plates etc.) within a key defined "recognition zone", producing usable evidential quality video recordings?

To help you complete the form, it should be read alongside the guidance notes on document C1(N).

## Section 1 - PICTURE QUALITY

This part of the assessment will require the camera's image to be presented on a reasonable quality well set up monitor - it should be mentioned that where an inferior quality display is being used, this may well underplay the actual camera's performance, usually with regard to displayed resolution and colour quality.

If there is any doubt as to the quality of the monitor, further guidance should be sought, or alternatively, the evaluation should be carried out using a very good quality reference monitor. If the camera is remotely controllable, it should be set to give a fixed view of its normally 'parked' position.

Look carefully at the displayed picture; then indicate how you would describe:-	<u>Indicate with a tick</u>				
	Excellent	V.Good	Good	Fair	Poor
1.1 - The detail in the overall image - how sharp is it throughout the view ?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.2 - The detail in the key 'recognition' zone - how sharply defined are any targets?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3 - The colour quality in the overall image (especially red, blue and green targets)* *(if using a Black and White monitor, then ignore this question)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.4 - Considering the overall appearance of the image, what is the contrast like?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 - In relation to the key 'recognition zone', describe the overall exposure level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 - In general terms, how stable is the overall picture on the monitor?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Now considering the issue of interference in the picture; how you would describe:-	<u>Indicate with a tick</u>				
	Awful	V.Poor	Obvious	Slight	None
1.7 - To what extent is the picture affected by any 'tearing' in the image?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 - Noise will normally appear as "sparkling" in the picture - how obvious is it?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 - To what extent are any vertical white lines or bars present in the image?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.10 - To what degree are horizontal dark bars seen moving from top to bottom?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.11 - Can you identify any dark mesh effect across the entire screen?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.12 - Is there any instability in the overall 'exposure' of the picture?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.13 - Can you see any obvious changes / drifting in the displayed colours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.14 - Is there any obvious 'flaring' around bright light points in the picture?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.15 - Is there any ghosting, or secondary image being displayed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Section 2 - TARGET SIZE

The following sections will relate to how a target (e.g. person, face, or vehicle number plate) is displayed on screen. First off, we need to consider how large the target is within the defined 'recognition zone'. Remember this could be the entire image, or a selective part where the camera has been optimized to provide precise recognition.

With a defined target in the 'recognition zone', please indicate the approximate target size, in relation to the screen dimensions:-	<u>Indicate with a tick</u>				
	80-100%	60-80%	40-60%	20-40%	<20%
2.1 - At the point nearest to the camera, what % height is the target on screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 - At the furthest point in the zone, what % height is the target on screen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 - What % of the edges of the picture is taken up by vertical areas (e.g. walls)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 - What % of the picture is taken up by horizontal areas (e.g. ceilings / roof)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 - Roughly what percentage of the recognition zone is obscured by fixtures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**IMPORTANT:-** These documents have been made 'freely' available for use by a CCTV operator, to test the performance of their own video surveillance cameras. They may not be used by any other individual, agency or commercial organisation, for their own financial gain, without the express written consent of *Doktor Jon*.

# **Doktor Jons** – 'TRUSTED'© CCTV Camera Assessment - C1 - Part B

Evaluation 1 / 2 - Date \_\_\_/\_\_\_/\_\_\_ - Lighting Conditions \_\_\_\_\_ Camera No: \_\_\_\_\_

## **Section 3 - TARGET PRESENTATION**

Whereas the first two sections are designed to assess the quality of the image, and the size of a target in the key 'recognition zone', this part is more concerned with the way in which a target presents itself to the camera. This is perhaps the most important but historically overlooked aspect of optimizing CCTV camera performance.

Look carefully at a 'target' in the recognition zone of the displayed picture (and refer to notes in document C1(N):-

(\* please circle your choice as appropriate)

3.1 - \*How would you describe the cameras coverage (field of view):- Ultra wide / Wide / Normal / Narrow / V. Narrow

3.2 - How far from the camera is the front edge of the recognition zone? ≥ - metres

3.3 - At roughly what angle do targets face towards the camera? ≥ - degrees

3.4 - At roughly what angle does the camera point down? ≥ - degrees

3.5 - \*Do targets generally only move in one direction, or completely randomly? straight line / random movement

3.6 - At roughly what angle do targets move in relation to the camera ≥ - degrees

## **Section 4 - TARGET DURATION**

Having considered the image quality, size and presentation of targets within the picture, this final section is intended to address the issue of how long they remain within the key recognition zone. This aspect is vitally important in ensuring that sufficient numbers of images can be recorded, for later use.

Looking carefully at a 'target' moving through the recognition zone of the displayed picture

4.1 - On average, how quickly do targets move in the zone?:- Stationary / Very Slow / Walking Speed / Running / V. Fast

4.2 - To what degree are targets blurred by movement?:- None / Slight / Obvious / Pronounced / Unrecognisable

4.3 - On average, how many seconds would a target be present in the recognition zone? ≥ - seconds

4.4 - Of this, how many seconds would a target be clearly identifiable in the recognition zone? ≥ - seconds

On completion of this form, the results can be interpreted using the Score Sheet document C1(R), and if there are a number of cameras in the system, the overall scores for each unit can then be transferred on to document SR1 (available on request) for more detailed analysis.

This form can also be used in conjunction with the separate forms M1 (for Monitoring and Display Equipment), R1 (for the Recording System), LC1 (to gauge Legal Compliance) and TS1 (for a Complete System Analysis). Used individually or in combination, these check forms can produce an overall evaluation of key components, or indeed the entire system. If used correctly, this structured analysis should provide a reasonable indication of shortcomings in key parts of the system, and offer a useful insight into ways of improving the current installation.

**If you need any further information or wish to comment , or offer any feedback and suggestions to help future development of the 'TRUSTED'© project, please contact *Doktor Jon* - email to:- [info@doktorjon.co.uk](mailto:info@doktorjon.co.uk)**

**Alternatively, you can discuss TRUSTED© on Doktor Jons Forum - <http://www.doktorjonsforum.co.uk>**

PLEASE NOTE: This particular TRUSTED© assessment is designed for general CCTV systems, to indicate relative performance and possible scope for development, and is not really intended for large systems or technically complex installations like Town Centre camera schemes. Even if a high score is achieved, it does not necessarily mean that there isn't room for improvement, or that an alternative set up may not have been more appropriate to the task.

The camera assessment should be carried out under all operating conditions that are appropriate (e.g. day only - use one C1 form per camera, or for day and night evaluation - use two separate C1 forms).

It should be realized that this is designed to provide a reasonable indication of CCTV Camera performance for Incident Monitoring and Evidential Recording only; it does not specifically take account of possible Site Management or Deterrence roles.

It should be clearly understood that this document is simply designed to measure equipment performance, but does not in any way relate to whether it has been correctly profiled for its intended purpose. Where a remote control camera has been evaluated, its eventual score will indicate the units imaging capabilities, but likewise will not offer any insight as to whether it is the correct tool for the job. *Doktor Jon* has provided these evaluation documents in good faith, and does not accept responsibility for the accuracy or suitability for any users individual situation.

Likewise no responsibility will be accepted for any consequential loss or disadvantage resulting from their use.