

**RED**  
CCTV

**DIGGER  
CAM  
PRO**

**HEALTH & SAFETY**

**PLANT SECURITY**

**TAMPER PROOF**

**1080P VIDEO  
RECORDING**

**REMOTE PROJECT  
MANAGEMENT**

**LIVE VIEW**

**AUDIT**

**LOCAL/CLOUD STORAGE**

# INTRODUCTION

The DiggerCam Pro Line of Products is a cost-effective, scalable device designed for in-Plant video surveillance and remote monitoring and recording . With its high-speed processor and embedded operating system, combined with the most advanced H.264 video compression/decompression technology, network technology and GPS positioning technology in the field, The DCP series of products can provide up to 8 channels of full frame recording in optional CIF/HD1/D1/720P/1080P formats for local recording and wireless data uploading. In conjunction with the platform software, the device can implement video alert functions such as Panic Video, Instant Impact Evidence, central monitoring, remote management and playback analysis, and is dedicated to extending our HALO Telematics product lines.

The DCPro series of products are simple and elegant, with super vibration resistance, flexible installation, powerful functions and high reliability keeping your site , plant or vehicles protected .

# FEATURES

- Optional storage ranging from 128gb up to 1TB
- Automatic video upload for specified event types
- File protection for emergency videos
- Protected file format to prevent file corruption issues
- Synchronized audio and video recording and playback
- Secure login administration to prevent unauthorised access
- Video output with configurable display selection
- Input trigger for in-cab display option
- Standard inputs to allow a multitude of camera options inc 360 degree camera integration where applicable



# UNITED UTILITIES PROPOSAL

## HISTORY

There has been an incident on a UU contractors site where an operative had been injured by a piece of shoring equipment being handled by a 30 tonne excavator. The investigation threw up conflicting reports from the victim , driver and witnesses so a solution may be required to assist with any incidents The discussions around excavator mounted CCTV began .

## SOLUTION

REDCCTV had already ran a similar trials with a UU contractor using digger and body cams and with Anglian water in 2019 using Diggercams .

The discussions focussed on camera positions and the data storage .

Cloud storage was favourite however subsequent costing has proved this far too expensive and difficult to stream every site every day but also we believe not necessary.

The solution will be to use the same 4G technology in a ruggedized DVR embedded and secured in the chassis of the excavator with a live connection to REDCCTV's 'HALO' telematics portal where footage can be retrieved remotely on request shortly after any incident by our technical desk whilst that footage will be available for up to 2 weeks locally on site in the DVR. The HDD on site can also be retrieved by our engineers for HD evidence if required.

The trial proposal will be to trial 2 systems , one on a mini excavator maybe on the R&D infrastructure and the other would be on a larger excavator on one of the larger infrastructure projects.

We will use a 4 channel DiggerCam recorder (DCR) and 1 forward facing external dome camera mounted on brackets by our engineers and wired into the excavators wiring routes back to the DCR .

On the larger excavators we can also gather evidence from any existing 360 safety cameras on a sub stream without interfering with its performance .

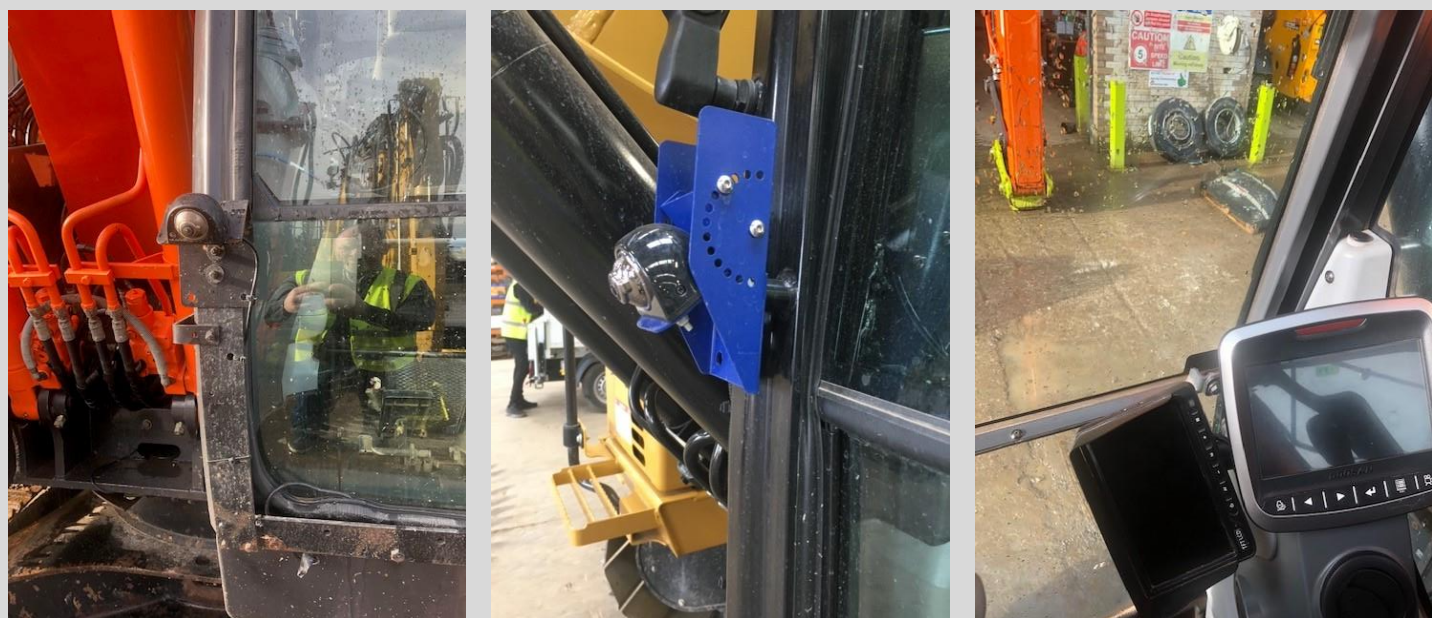
## MINI EXCAVATOR PROPOSAL

For the mini digger we will install a HD dome camera on the mini digger in the top right of the drivers window as you look into the cab so it is not in the drivers line of vision and can get a better field of vision for the working area.



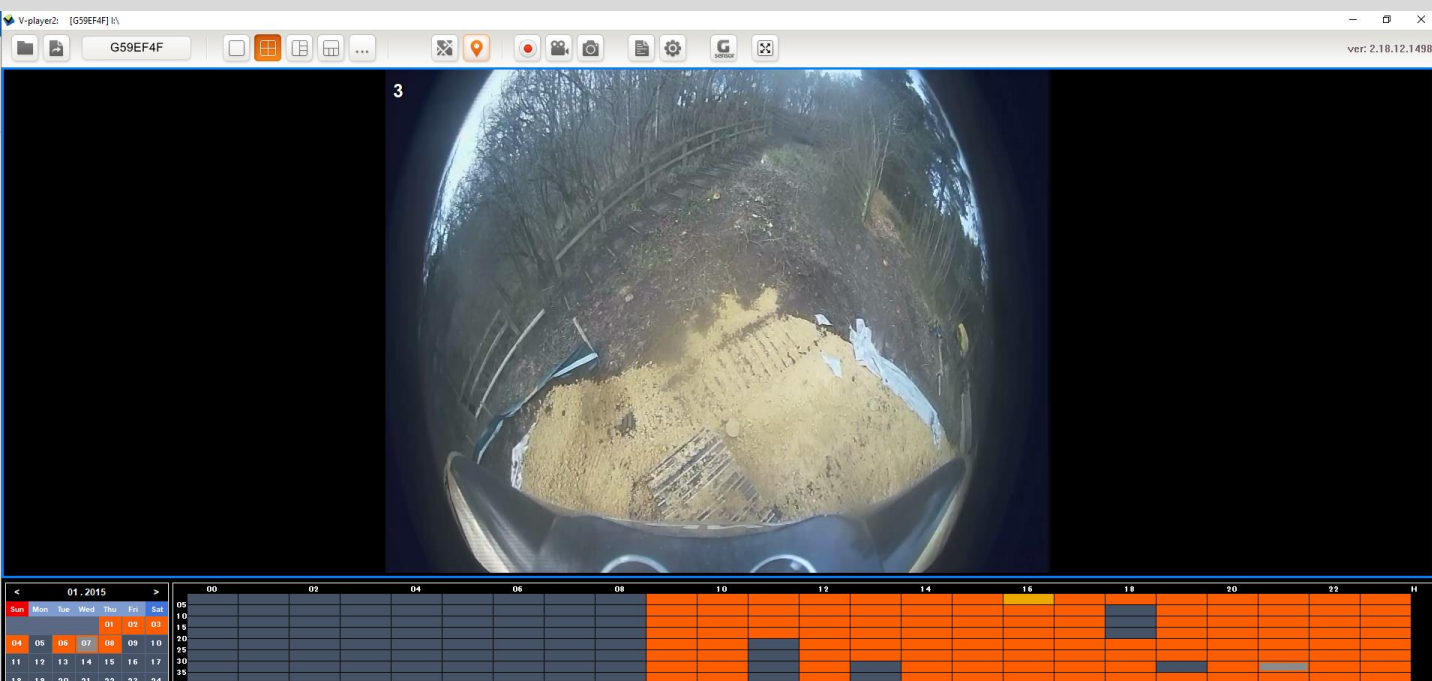
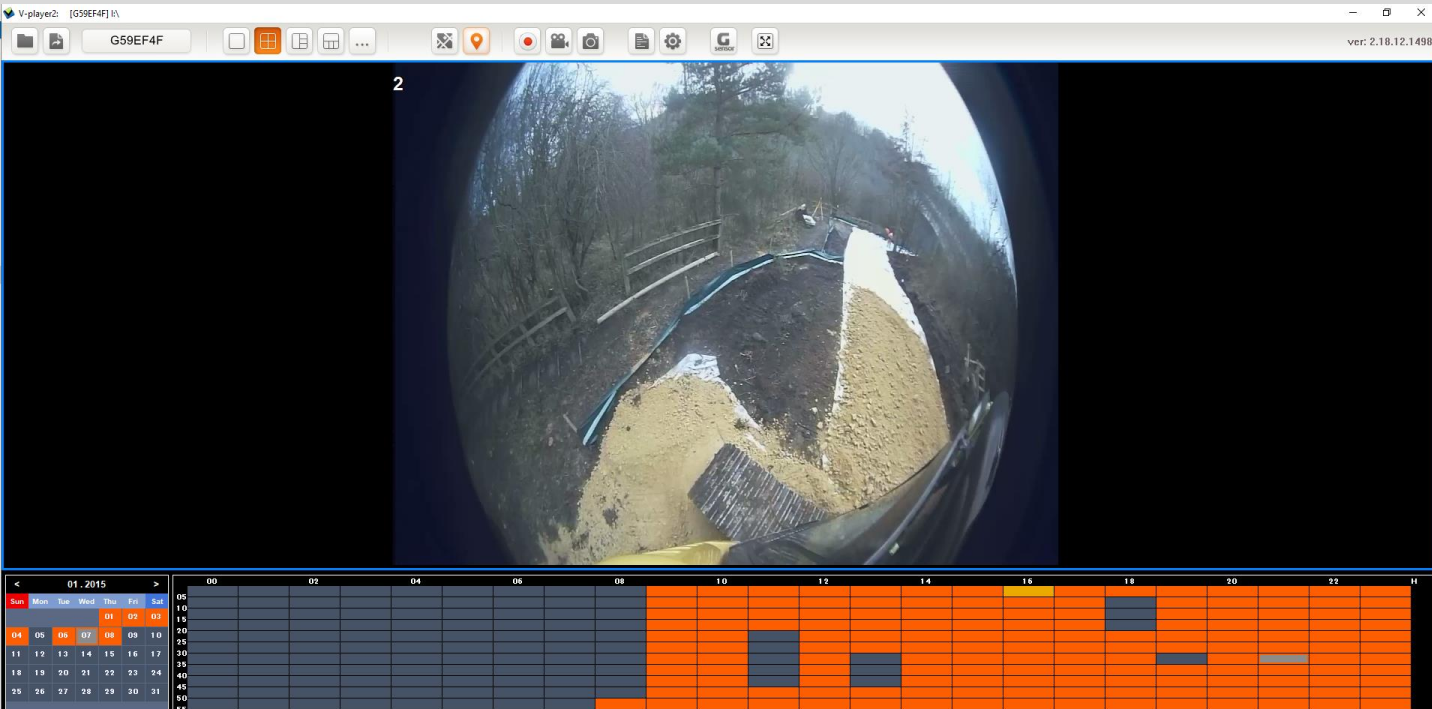
## LARGER EXCAVATOR PROPOSAL

For the Larger excavator we will install a HD dome camera on the left hand side of the drivers window as you look at it next to the boom so it is not in the drivers line of vision behind the dashboard and manifold so therefore can get a better field of vision for the working area. This will cover the working area in front of the excavator



# LARGER EXCAVATOR PROPOSAL part 2

We propose to utilise the existing cameras of any existing 360 degree safety system (overhead birds eye view of excavator ) by taking the camera stream into a secondary channel of the DCP recorder . This then gives sometimes critical evidence of what was happening at the side or rear of the excavator at the time of any incident .



# UNITED UTILITIES PROPOSAL

## COSTINGS

For the purposes of the trial there will be a capex cost of £1100 per mini digger and £1250 for the larger excavator to cover the purchase and installation and commissioning through to the HALO telematics portal . Depending on how long the trial would last there will be an ongoing cost for the SIM cards, data allowance, technical support , training and engineering and maintenance support a cost of £20 per week per unit

## FUTURE CONTRACTS / PURCHASING OPTIONS

Of course the above costs are for the trial only. REDCCTV envisage that we could offer finance and rental options such as installation & monthly management costs being financed over 12 – 18 months and / or REDCCTV renting the equipment direct to a UU contractor or their plant hire partner for an additional rate built into their plant hire rates perhaps