

D-VAS Digital Video Analysis System

The MoD asked MASS to provide a facility to enable Subject Experts to quickly replay and analyse video material produced during equipment trials.

Video material can be provided by the test sites in a wide range of media types both analogue and digital in both UK and US formats (PAL and NTSC).



To meet the client's requirements, the equipment had to be in place and fully functioning within 2 months from the date of order.

In fulfilling this requirement MASS designed and built two sets of readily transportable equipment. Each set comprised a Video Replay Rack, and a Video Analysis PC. Each part of the equipment was housed in its own secure transportation case to allow it to be flown round the world to the test sites.

The Video Replay Racks were designed to provide analogue video sources to be captured by the PC; alternatively the integrated DVD recorder can produce digital media independently for later use.

To analyse the material, MASS developed a bespoke software application "Quadplayer",

which allows the user to view up to four time-synchronised video streams on one display. Each stream may be of a different angle of view on the physical event or displays from control equipment, radar systems etc.

Digital video can be supplied to Quadplayer in many of the normal video file types including .avi, .mpg, as well as straight from DVD discs.

To meet the delivery times and manage risks, COTS equipment and software were widely used throughout the system. Bespoke parts were designed only for those areas where the function or user interface was application specific.

All procured items were provided from MASS' database of approved suppliers. This reduced the risk of late or miss-supplied items causing delays to the production or test programmes.

The hardware was integrated and factory acceptance tested four days before the deadline, proving yet again, our ability to deliver against challenging timescales.



MASS is ISO 9001 and TickIT approved, and offers customers complete confidentiality.

Our company has a wide range of software, electronics and computer hardware expertise spanning the whole development spectrum; from the generation of complex mathematical models on single or multiple platforms through GUIs and databases to complex real-time embedded control systems.



FLY022/1



trusted to support secure operations

MASS is an independent UK Systems House with a strong Defence & Aerospace market focus, offering specialist skills in:

- Electronic Warfare
- Technology & Innovation
- Information Technology

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System Specification	
Video Analyser PC	<i>Hardware Specification – Minimum Requirement</i>
	Intel P4 microprocessor Intel D865PERL Motherboard IEEE 1394 Firewire ports USB 2.0 ports x 4 DVD +/-RW Dual Layer Writer x 4 80GB Hard Disk Drive 160GB Hard Disk Drive 4GB RAM Graphics Card 256MB DVI out 21" TFT with speakers DVI and 100-240Vac 47-63Hz PSU Auto Switching Power Supply Video capture card
	<i>Software Specification</i>
	Pinnacle Studio Deluxe 9 Windows XP Pro Microsoft Office 2003 Pro Corel PaintShop Pro 9 SNAGIT 7.1 Roxio Easy CD/DVD Creator 6
Video Playback System	Panasonic AG7350 VHS/SVHS Recorder / Player Sony GVD200 Hi8 Recorder / Player (PAL) Sony GVD200 Hi8 Recorder / Player (NTSC) Panasonic DMRE55HEBS DVD Recorder / Player Kramer VS806 Y/C Matrix Switcher Sonifex Red Box RBBL2 Balanced to Unbalanced audio matcher Y/C Composite Converter - Composite and Y/C video Conversion. Kramer Video Distribution Amplifier - one Y/C signal into two outputs.
System Performance	
Video Sources	Analogue tape – VHS/SVHS/Hi8 or DVD – NTSC/PAL formats
Video Streaming	Standard AVI / MPEG
Video Stream Manipulation	4 video stream with independent Playback, Pause, Fast Forward, Rewind, Step & Stop. Start and Start point Control, Frame Synchronisation.
Playback Control	Video capture as data file; Edit raw data file; Burn to DVD as Video
Frame Capture & Edit	Full Resolution 720 x 585 pixels Frame Rate 25fps PAL or 30fps NTSC
DVD Creation	Codecs supported: Indie05, Div-X, Cinepack, AVI-DV
Environmentals	Operating temperature +5°C - +35°C Humidity 5% - 90% Non-condensing
Power	110Vac 60Hz or 230Vac 50Hz autosensing

