LTSMG

VISUAL DISPLAYS

LTSMG Webinar
May 2020 Programme

5 – On-campus Room & System Auditing

DISPLAYS, LIGHT & ENVIRONMENTAL EXPERTISE

PRODUCTS, SERVICES, SPECIALIST CONSULTANCY

Presenter – Greg Jeffreys

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- Managing Director, Visual Displays (formerly Paradigm AV)
- Specialisms include standards, displays, light & lighting, VC lighting, teaching space & meeting room design
- Chair, AVIXA Standards Steering Committee
- Task group member, AVIXA's new UX for AV Design standard
- Task group chair ANSI/AVIXA DISCAS standard – image size, resolution, viewing positions/angles, content size guidance
- Lead writer, PISCR image contrast standard – and new ISCR standard task group
- President of InfoComm/AVIXA 2012, board member 2008-13
- Former visiting lecturer, UMIST – post-grad MSc *Sustainable Electronic Building Design* (Prof Geoff Levermore)
- Proud associate of AV User Group!

LTSMG webinar series programme

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- Monday – Standards for Technology Campus Management
- Tuesday – HE Teaching Space Design
- Wednesday – Display Specification and sign-off
- Thursday – ANSI/AVIXA DISCAS Standard for HE
- Friday – On-campus Room & System Auditing

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Poll questions

PLEASE KEEP QUESTIONS COMING DURING THE WEBINAR!

Themes for the week

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- AV is complex, multi-disciplinary, multi-stakeholder – why standards provide the tools you need to get the results you need
- Easier to use than not to use
- Removes subjectivity
- Improved communication with senior management and other stakeholders
- Metrics for achieving best budget value
- Better and unequivocal communication with integrators
- Clearly defined and measurable outcomes with integrators
- AV being considered at earliest possible project phase
- Post lockdown, students will need to see and hear content in the farthest corners of teaching spaces
  - AV Standards
  - Linking ‘hooks’ into environmental standards

Learnings from Day 4?

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- Student return to campus post lock-down will have impact on required image size

- Moving into Day 5…
  - The final day!
  - Interest in space reconfiguration tools for social distancing causes change to today's agenda
  - Special guest: Dr Piet van den Zanden, TUDelft

Today

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- Objectives, themes – setting the scene
- AVIXA Audiovisual Systems Performance Verification (AVSPV) Standard
- WELL Standard
- iAuditor
- Display audits
- Environmental & lighting audits
- TUDesc - TU Delft Education Space Configurator
- TUDesc - TU Delft Education Spaces Viewer
- Concluding comments
- Q&A

What are our objectives?

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- Define ‘good enough’ – the pass mark
- What complexity is needed
- Who is it for – tech management (you!), senior management
- What is it for – system status, system condition, determining budget allocation for upgrades, remediation
- Who does it?
  - Your team?
  - Independent auditor?
  - Your framework integrators?

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Poll question – what do you use now?

Existing estate or New/refurbished spaces

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- Existing estate management
- New spaces
  - Defined outcomes
  - Measuring performance – defined metrics
  - Getting it right first time – eliminating the snagging loops
  - Working to agreed standards with your integrators

Distinguish between the space and its contents – holistic outcomes in mind

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- Environment
  - Wall finishes
  - Lighting
  - Furniture/fixed
  - Furniture/deployable
  - Etc
- Technology and teaching equipment
  - Whiteboards
  - Displays – fixed
  - Control
  - Software
  - Etc

Support your strategic objectives

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- Verifying and verifiable statements for teaching resources, technologies, learning outcomes
- Concrete data for student prospectuses
- Supporting revenue generation – events, conferences
- Supporting readiness for changing requirements post lock-down and future lock-downs

Single unifying standard?

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- WELL Building Standard
- Example of a single unifying standard which can provide ‘hooks’ (concrete metrics) which link to AV and related standards
- Good for reporting to senior management
- Good for liaison and positive outcomes working with other stakeholders
  - ‘If we don’t use this, then what do we use?!’

INTERNATIONAL WELL BUILDING INSTITUTE™

AVIXA Audiovisual Systems Performance Verification Standard (AVSPV)

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- Existing standard
- New version about to go into public review
- LTSMG members strongly advised to engage with the review process!

AVSPV Scope

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- This Standard provides a comprehensive evaluation framework and associated processes to verify functionality and performance of an audiovisual system in accordance with the system's project documentation.
- The Standard identifies:
  - the timing of verification;
  - a list of reference items to be considered, delineated by their function as related to the system;
  - a process for determining verification metrics;
  - reporting procedures.

AVSPV – 13 functional categories

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- Audio Performance
- Video Performance
- Audio/Video Performance
- Cable Management, Termination, and Labeling
- Control Performance
- Electrical
- Information Technology
- Operations and Support
- Physical Environment
- Physical Installation
- Serviceability
- Wireless
- System and Record Documentation

AVSPV – Alignment with other standards

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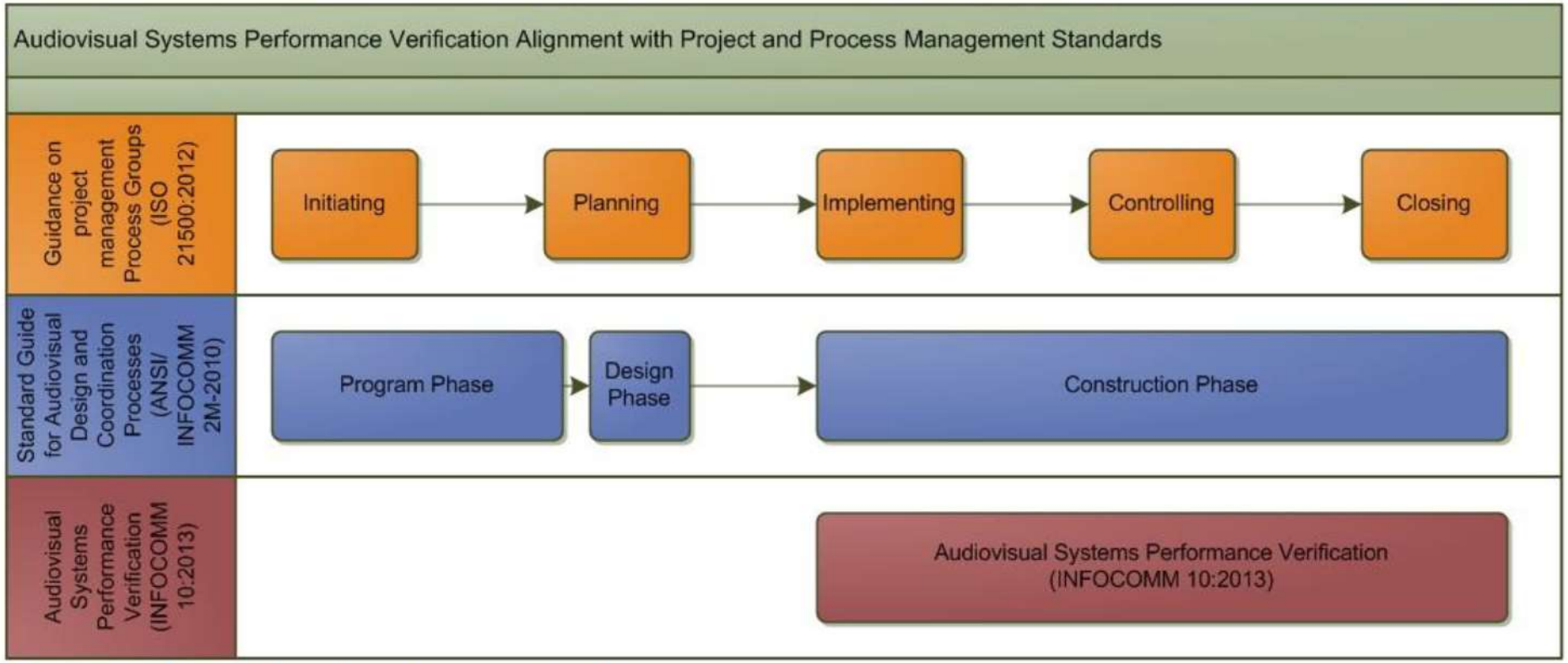

Figure 1 – Illustration of Implementation Phases

AVSPV – Verification Framework

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- This Standard provides a customizable methodology that yields project-specific performance verification reporting for an audiovisual system. While there is an overarching methodology for the framework, there is no "one size fits all" approach when it comes to system performance verification. This framework is intended to be used with existing project and quality management processes implemented by the organization. Additionally, existing organizational verification processes can be adapted to be in conformance with the Standard.

Figure 2 – Framework Process Groups

Verification – Phases & Milestones

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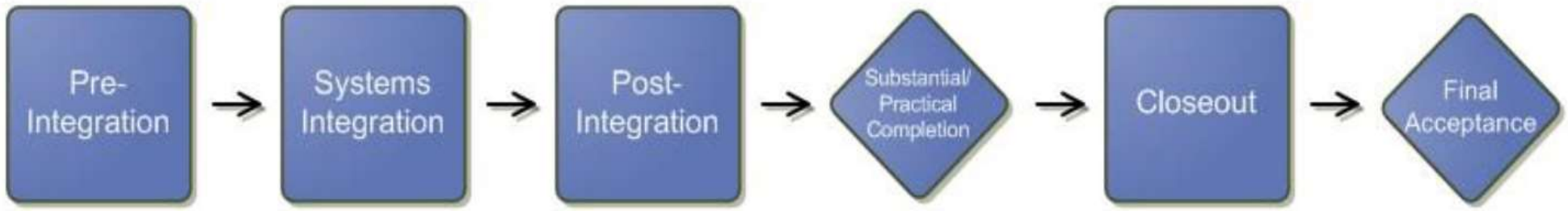

Figure 4 – Verification Phases and Milestones

Metric selection & hierarchies

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Figure 6 – Verification Metric Selection Factors

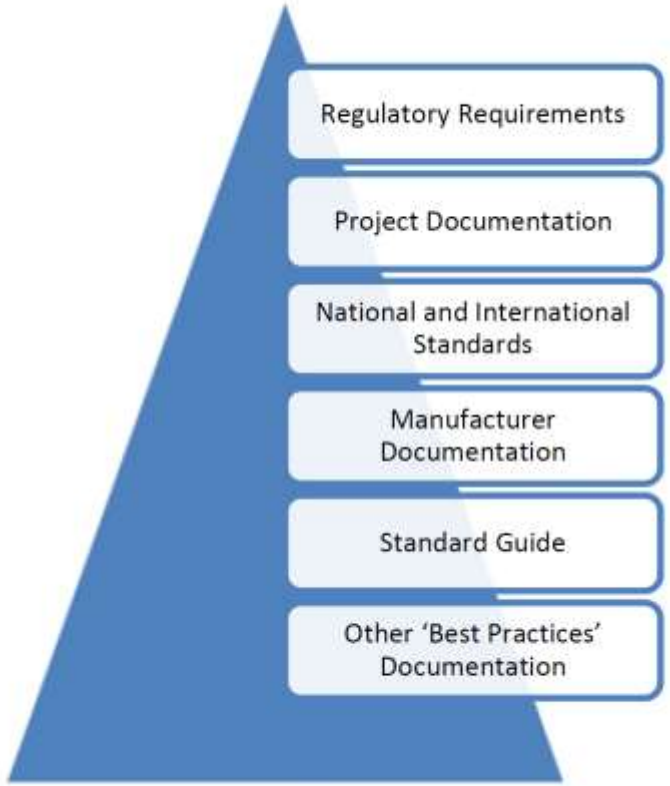

Figure 7 – Hierarchy of Metric Selection

Reference Verification Items by Functional Category and Verification Phase

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9.3 Audio/Video System Performance Reference Verification Items

Item Number	Item Name	Pre-Integration	Systems Integration	Post-Integration	Closeout
AVP-100	Emergency Communications		X	X	
AVP-101	Genlocking (Video Synchronization)		X	X	
AVP-102	Audio and Video Recording			X	
AVP-103	Audio/Video Sync			X	
AVP-104	Radio Frequency Television Distribution			X	
AVP-105	Source Testing			X	

Testing with AVIXA standards
Example: PISCR

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DATE	16-Dec-19
ROOM/LOCATION NAME	Southampton Uni
FRONT/REAR	Front
SCREEN MAKE/TYPE	dnp Supernova Infinity
GAIN?	0.8
IMAGE SIZE (mm)	not measured
IMAGE BASELINE (mm)	not measured
ASPECT RATIO	16:9
PROJECTOR	Epson
NOTES	
Ambient light on screen (projector off)	
Ambient light in working area	
Tested by	Greg

4th Floor

13.50	441.00	14.70	368.00
342.00	17.20	401.00	17.30
19.50	279.00	18.60	238.00
177.0	18.6	191.0	17.9

White square average	270.8	
Black square average	17.2	
CONTRAST RATIO	15.78	: 1

AQAV – AV9000

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- Obviating the snaggings list
- Good reception from AV User Group
- US-based
- Current work on adapting to UK building codes and related standards

AV9000 CERTIFIED

AV9000 COMPLIANT

- Possible system for helping your framework integrators

AQAV – Observational & meter testing modes

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- Practical approach:
  - Structured observational certification (your teams)
  - Measurement/formal sign-off (e.g. pre-handover requirement for integrators or 3rd party certification?)

iAuditor

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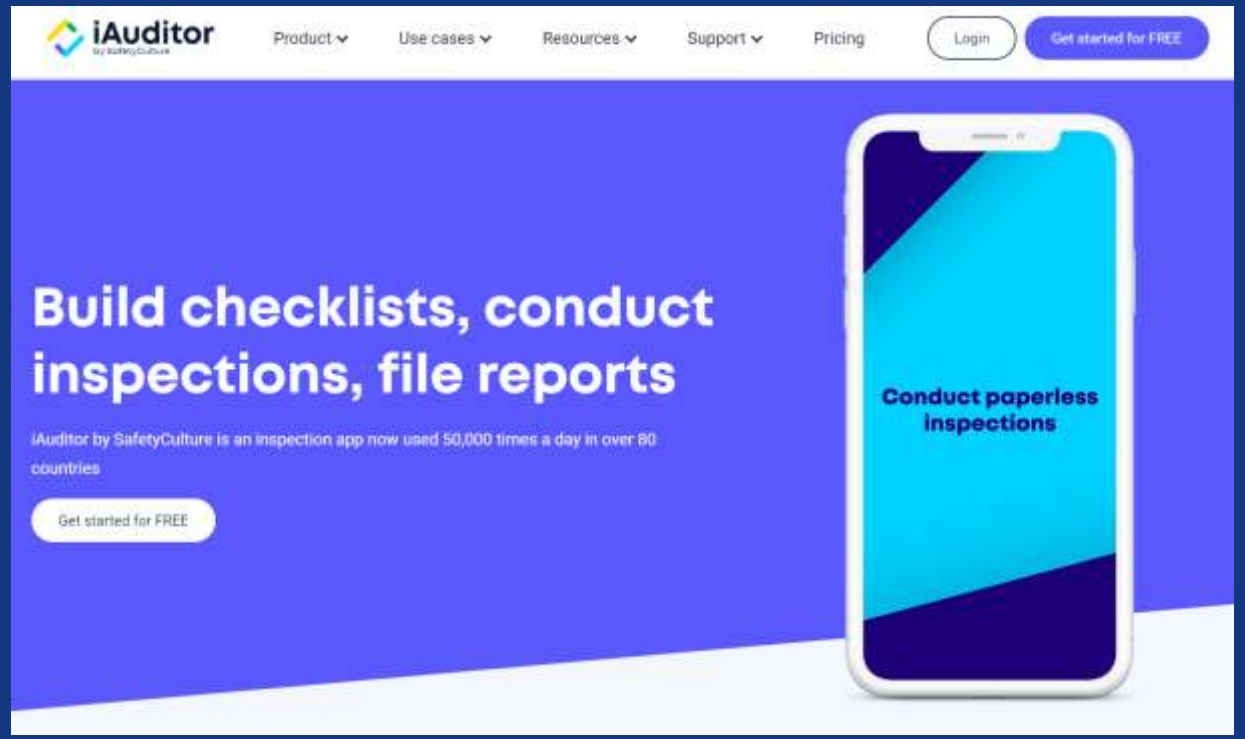
- Adaptable online tool
- Well-suited to campus use
- Start with free version!



Innovations from TUDelft

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- Dr Piet van der Zanden
- Education Expert AV-IT in Learning Spaces
  - Education expert with special focus on AV-IT and ergonomic issues in teaching and learning spaces.
  - An initiating role in design and development of education facilities and advises about audio-visual, pedagogical, ergonomic and technical issues.
  - Feasibility and usability studies about new pedagogy build upon or facilitated by new technologies to achieve and maintain high quality teaching and learning spaces.

Social distancing space configurator

Complete space configuration and management

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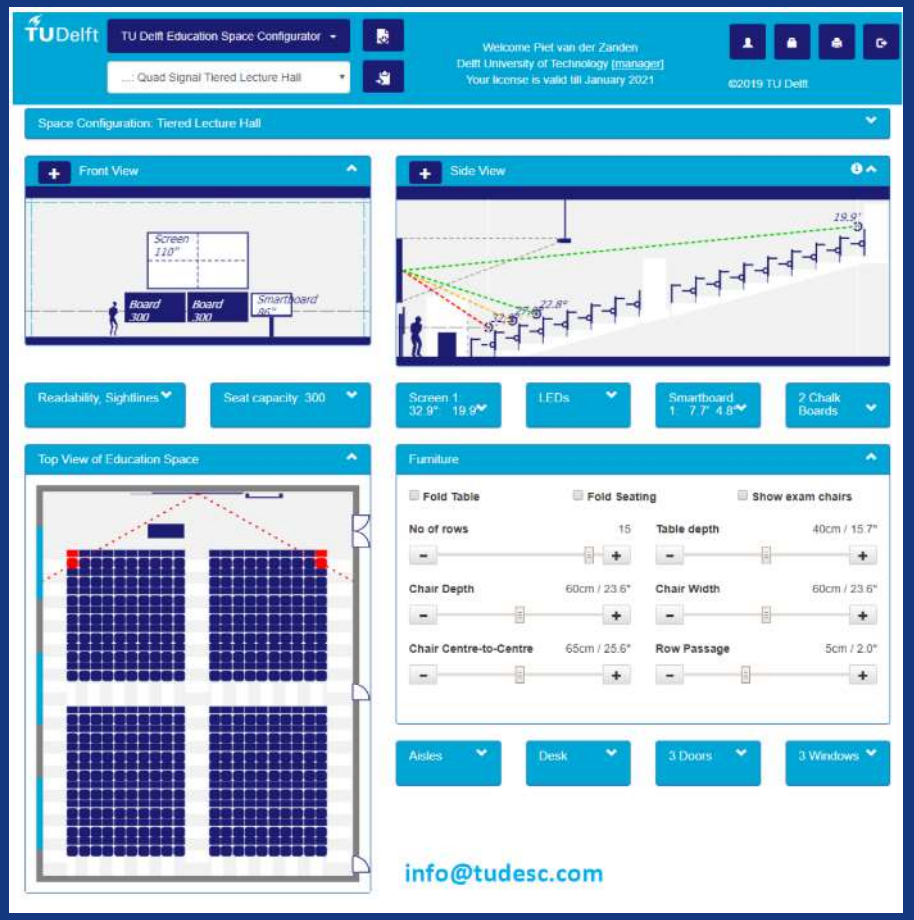
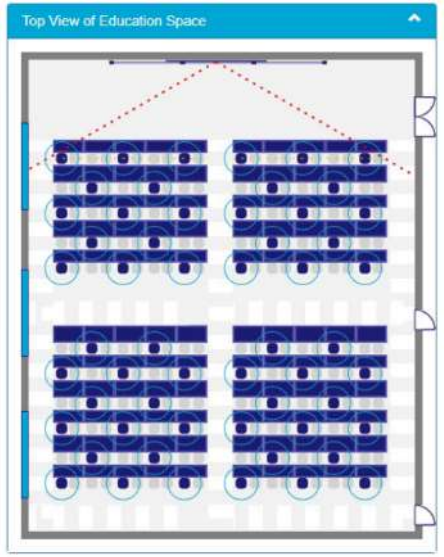
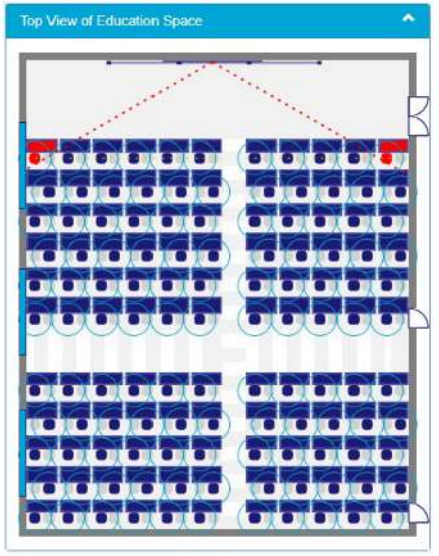


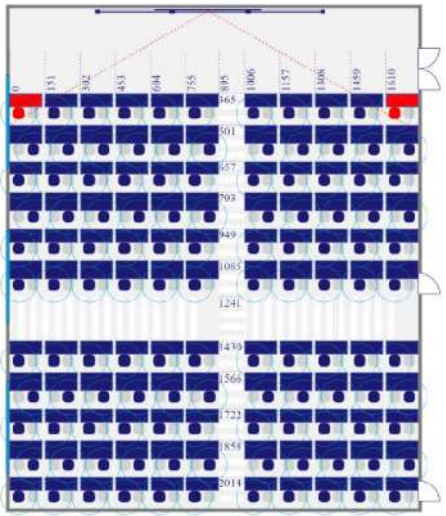
Social Distance with normally generated Seat Capacity (56)



Social Distance with optimized Seat Capacity (121)



Printed detailed Floorplan for facility instructions



Tying it all together!

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- Current time of upheaval, uncertainty – but definite change – is background for fresh examination of managing campus technology and how these needs are consequently altered.
- Hierarchy of needs and responsibility: who reports on what to whom?!
  - Senior management
  - Campus tech management
  - Campus techs
  - AV consultants
  - Framework integrators & other supply partners

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Specialist manufacture, distribution, services.

Supporting HE framework integrators to excel.

DISPLAYS, LIGHT, ENVIRONMENTAL & STANDARDS EXPERTISE

Visual Displays Ltd

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Specialist manufacture, distribution & services

Working in partnership with & through the channel

- Products
  - dnp Supernova ALR (ambient light-rejecting) projection screens
  - Complete Epson laser display bundles – from 100" to any size
  - Comprehensive projection screens, materials
  - Immersive displays
  - Bespoke display & mounting solutions
  - Bespoke interactive displays
  - Daylight control (blinds)
- Services
  - Room surveys and estate audits (using meters & reporting to standards)
  - Display design and specification
  - Parametric 3D CAD design
  - Expert tender response support and consultant liaison
  - Space redeployment design for social distancing
  - System troubleshooting
  - Proof of concept
  - Specialist advice & consultancy

Ambient light rejecting screens

…best known for dnp Supernova

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dnp Supernova 08-85

dnp Supernova 20-25

Standard white Da-Lite gain 1

See full Gary Kayye ISE video here - https://www.dnp-screens.com/en/video/dnp-ambient-light-rejecting-screens-at-ise-2015/

https://www.dnp-screens.com/

Successful HE case studies

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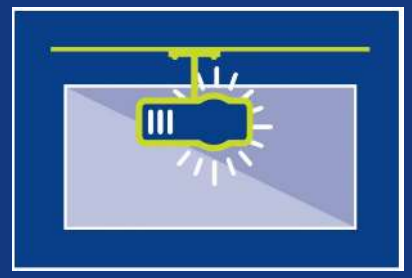
- Southampton Uni with ProAV
- 3 x dnp Supernova Infinity
- 3 x EB-L1500UH
- *All over 15:1 contrast ratio*

Complete Laser Displays



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Standards-compliant large screen displays

- Complete bundled packages, Epson projector (with warranty), dnp screen & Epson mount.
  - 100", 110" & 120" with UST (e.g. EB-700U)
  - 100" to any size with standard lens laser projectors
  - Furniture & bespoke options available
- Option to buy complete displays as single SKUs
- Fraction of £cost/m^2 compared with LFD, dvLED etc
- *Available through all framework integrators*

www.visualdisplaysltd.com

Specialising in the difficult!

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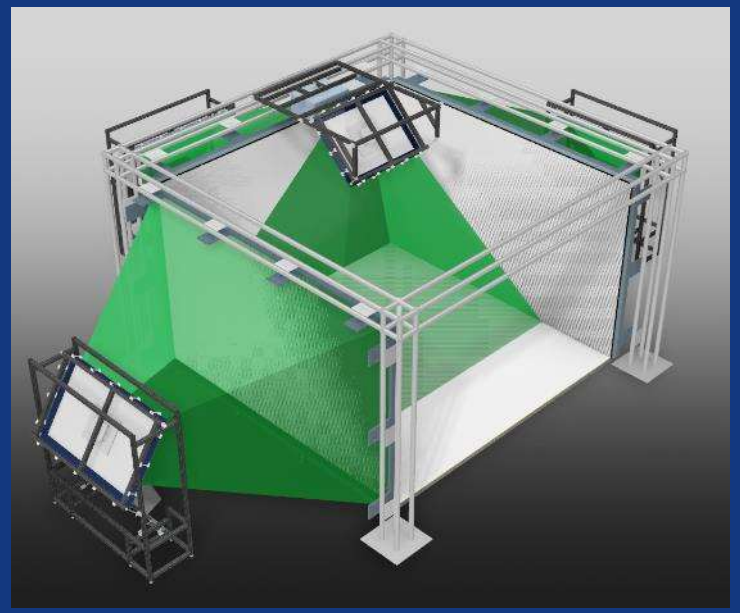

CAVES

MULTI-PROJECTION

CURVED SCREENS

LARGE SCREEN INTERACTIVE

IMMERSIVE, SIMULATION, AR, VR, CR etc

World-leading 3D CAD design and bespoke manufacture

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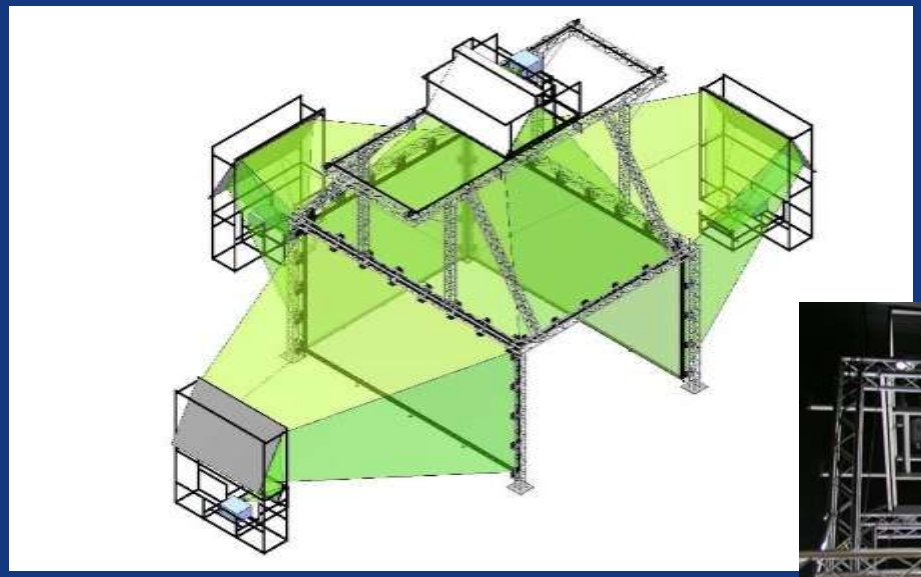
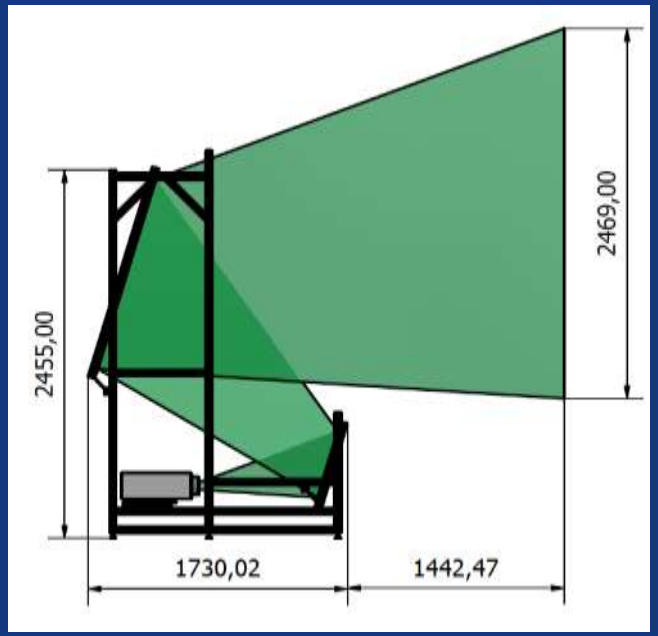
- We solve problems





Q & A

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