



Project Description Document

3102 PDD_AEGEAN,

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DIVA

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ASSOCIATED DOCUMENTS

- ...

REVISION HISTORY

REVISION	ISSUE Description	DATE

RECIPIENTS & APPROVALS

For AMY SA	Abbrev	Function	Email
Mr. David Chalkidis, Manager	DC	Administration, AmyDV	d.chalkidis@amy.gr
Mr John Palamas	JP	Sales, AmyDV	
Mr George Giovanos	GG	Technical Support, AmyDV	
For Customer,			

PROJECT OVERVIEW

A compact setup for a flexible transportable TV studio for recording and streaming with multiple outputs

Special attention was given for the setup to be flexible and redundant

SCOPE OF THIS DOCUMENT

The purpose of this document is to clarify the contents of the **Tele-Studio** and their respective applications.

This document will also highlight potential risk areas, and ways to avoid problems. It should be used as a reference document and updated as necessary throughout the life of the project using the Project Change procedure (see Appendix C – Project Change Procedure). It will form the basis of the Project Acceptance process and may also be used to copy/paste sections to provide an End-User Reference Manual. [optional service].

It is not to be used instead of the various manufacturer's manuals but rather to bring together various pieces of information the authors consider useful for the scope of this document.

RESPONSIBILITIES

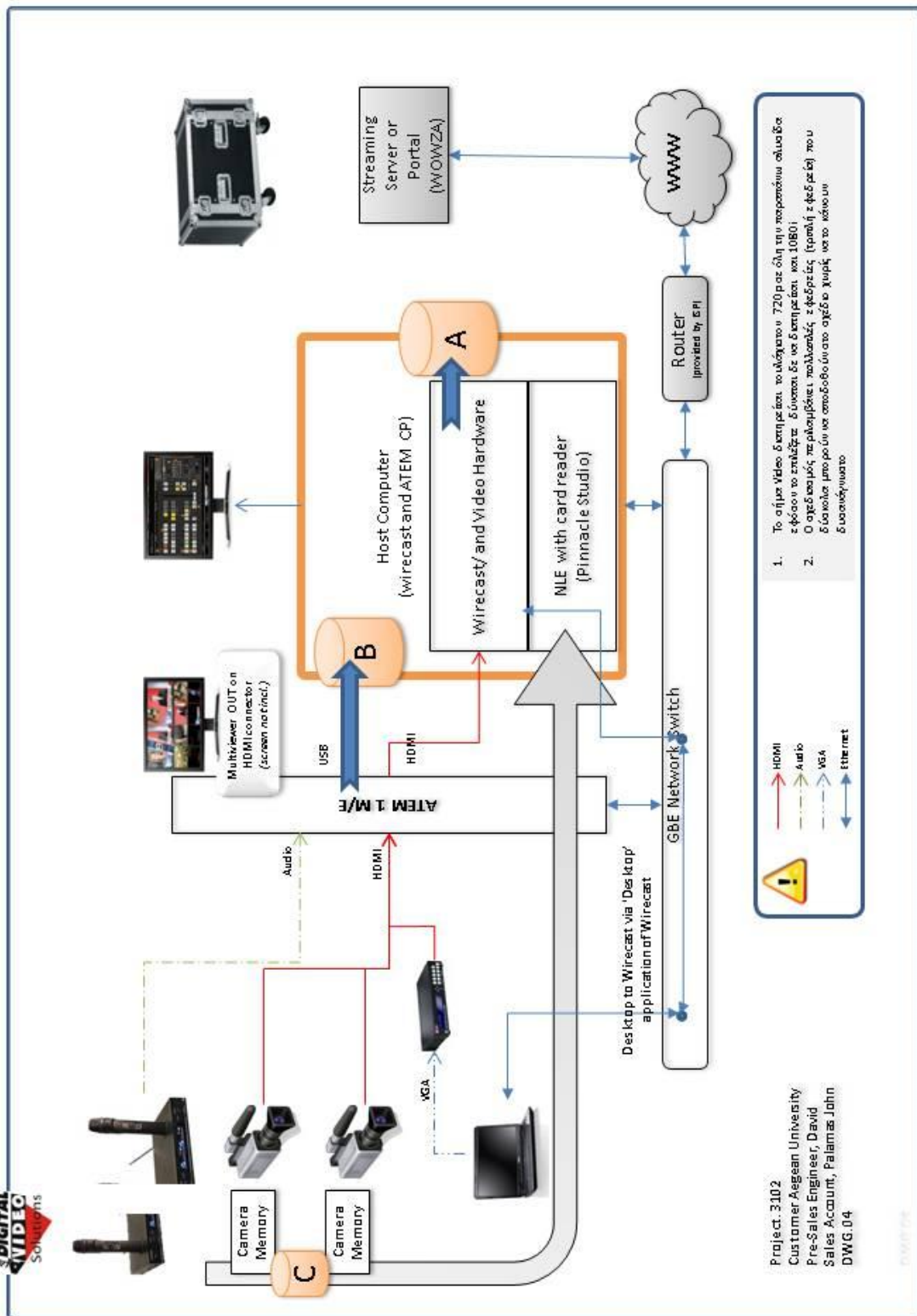
Customer Responsibilities

- Prepare new technical area for this installation according to broadcast standards for machine rooms. It is suggested that these plans be made known to AmyDV to avoid delays during the installation.
- Provide power (stable levels, uninterrupted etc ie from UPS) to agreed interface points in each room.
- Appoint a learned operator with the ability to operate the equipment.
- AmyDV strongly recommend appointing a project super user with appropriate IT and broadcast skills who will be the expert able to manage the systems and guide the various operators.
- Provide internet access suitable for remote access by AmyDV and other third party companies to the equipment.

Prime Responsibilities

- To implement the project described in this documents respecting standard broadcast and IT conventions
- To implement the project with security for persons and property in mind
- To provide to customer clear instructions regarding the proceedings
- To provide parts described in this document

SYSTEM DIAGRAM



SYSTEM IMAGES

SUMMARY

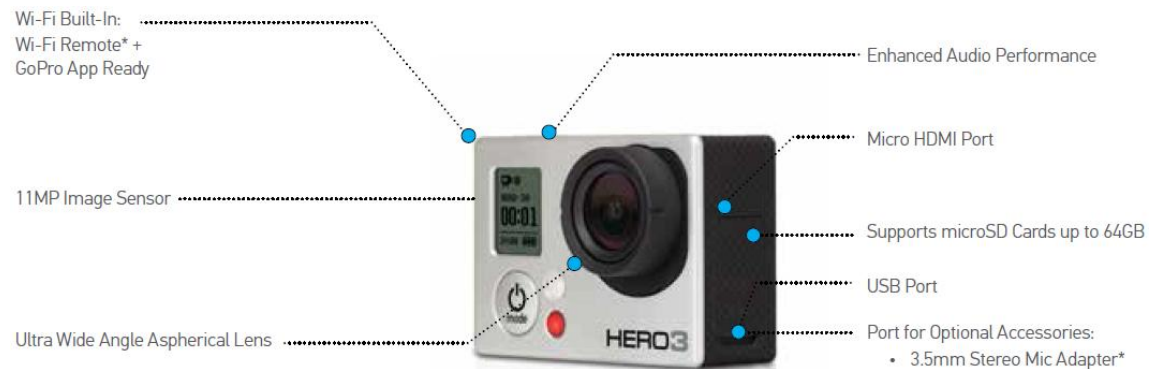
The project includes;

- Cameras and Tripods
- Vision Mixer and
- Multiviewer
- Microphones and Audio Mixer
- Redundant Host PC
- Streaming and Capture
- Editing

In each area the agreed implementation is described further below

CAMERAS and TRIPODS

For Cameras the very flexible high-quality and compact GoPRO Hero3 cameras were chosen with the relevant options for placing on Tripods as well as compatible high quality SD cards in the case Timing for the system is provided by a combination of Harris timing devices providing maximum redundancy and efficiency.



Specifically;

Camera and Tripod equipment parts list

2	GOPRO HERO3 SILVER	camera
2	GOPRO HERO3 HDMI CABLE with Adaptor	για
2	HDMI cable connector F/F	για ένωση Go Pro adaptor με μακρύ HDMI
2	Go Pro tripod option	για τοποθέτηση GoPro σε τρίποδο
2	Go Pro Skeleton case option	για προστασία GoPro
2	SanDisk MobileUltra MicroSD 32GB Class10	για τοπική εγγραφή από FoPro
2	Libec TH-650DV	τρίποδο για cameras
2	long run HDMI cable, M/M, Black	για σύνδεση σε ATEM
1	ARNOVA 10D G3 4GB	μη απαραίτητο - υπερχαλύπτεται από multiviewer ATEM

Application.

The cameras are to be used to acquire the video for the systems.

Risks

The long run HDMI cables are very sensitive and care should be taken to avoid any short bends which may affect the operation. The cables are consumables and no warranty can cover any problems which may appear after their initial test.

VISION MIXER

The ATEM 1 M/E Vision Mixer was chosen based on quality of image, manufacturer reliability and also size and flexibility.



Vision Mixer Parts list

1	BMD ATEM 1 M/E	Production Switcher
1	ATEM Audio cable	
1	ATEM power supply	
1	LG Monitor	Οθόνη με HDMI είσοδο για ATEM multiviewer
1	Kramer VP-425	scaler για υπολογιστή διδασκάλου/ ομιλήτή
	The ATEM is controlled by the ATEM application	



Application

The Platinum router will be used to provide routing for the Production area, the continuity area, analog encoding and integrated multiviewer. The integrated multiviewer allows us to flexibly route ANY router input to the Multiviewer without the need to re-cable.

MULTIVIEWER

The ATEM 1 ME has integrated multiviewer to provide operator with preview of signals coming in (Cameras, PC screen and images). *Customer can create his/ her own multiviewer screens.*



The multiviewer is integrated in the ATEM mixer which means that it has all the router inputs available.

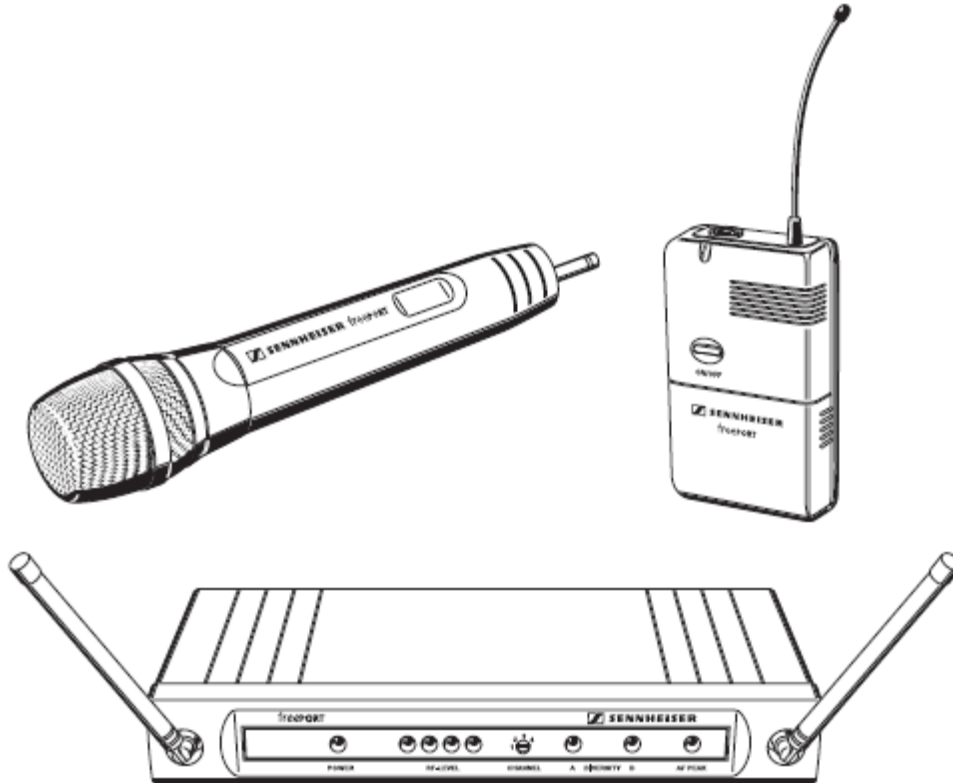
Multiviewer Control

Multiviewer control [template changes] are managed via the ATEM mixer control application on the Host PC.



Microphones and Audio Mixer

The Sennheiser presentation series was selected for acquiring the audio. The Phonic Audio mixer allows the operator to quickly correct peaks or drops due to the differences in speakers voices and use of the microphone especially the audience providing him/ her with a completely professional solution to manage a perfect mix since audio is especially important in educational streaming applications.



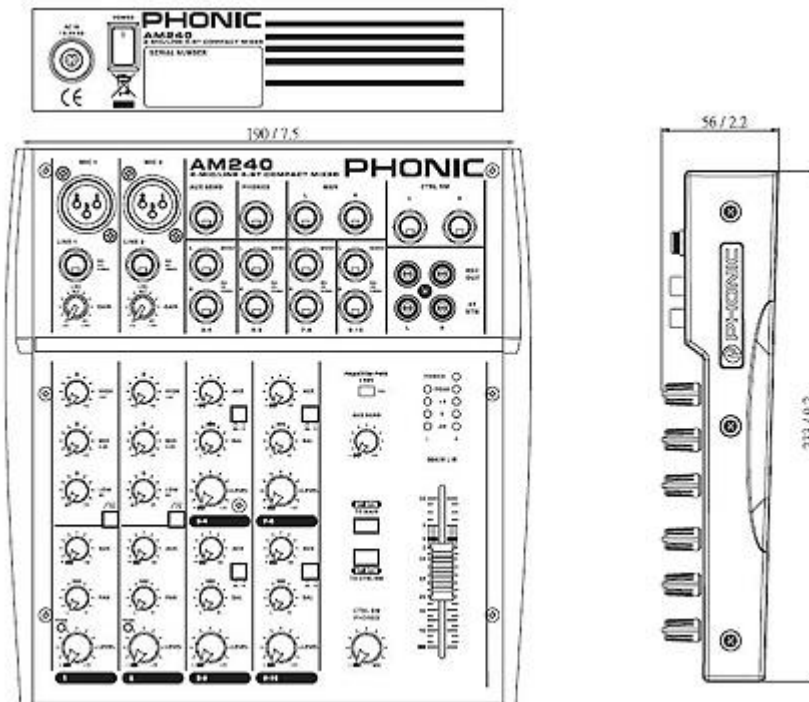
Microphones and Audio mixer parts list

1	AM-240 Phonic	Αναλογική κονσόλα
1	Freeport Presentation B Sennheiser,	ασύρματο set μικροφώνου Πέτου
1	Freeport Vocal B α Sennheiser	συρματο set μικροφωνου
1	Speedlink Thebes, headphones with microphone	ακουστικά με μικρόφωνο
2	Καλώδιο καρφί-καρφί	Καλώδιο σύνδεσης δέκτη μικροφώνων με κονσόλα
2	Καλώδιο καρφί-XLR	Καλώδιο σύνδεσης κονσόλας με ATEM
1	καρφί μικρό/ μεγάλο	Για προσαρμογή βύσματος ακουστικών

Application

The clip-on wireless microphone is for the speaker and the stand or hand-help microphone for the audience. The clip-on is a wide area receptive microphone while the hand-held is narrow band receptive to avoid noise from the audience.

The audio console is provided to allow fast corrections to the respective levels in order to keep the output audio signal as close to 0db as possible considering the manners of speech of individuals.

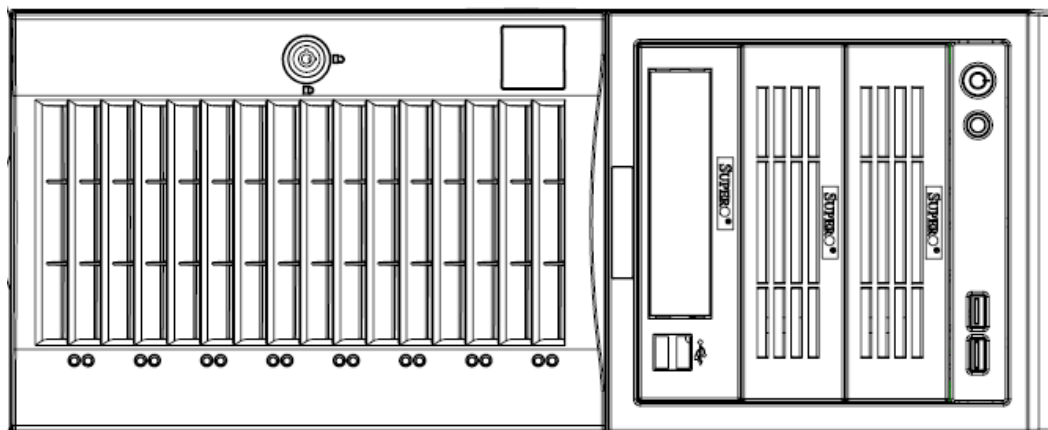


Risks

The wireless microphones may be affected by wireless signals in the area. Each system has 4 channels managed by a rotating switch on each microphone base unit and also on each wireless microphone. Refer to the manufacturers manuals provided.

HOST PC AND APPLICATIONS

The Master control Switcher is the Harris Iconmaster™. The Harris Iconmaster frame is located in the ADC rack. The master control switcher frame is supplied with redundant power supplies.



Host PC and applications parts list

1	Supermicro SC743	Ισχυρός υπολογιστής με εφεδρείες
1	Extra network adaptor	επιπλέον κάρτα δικτύο για αυκολη διασύνδεση
1	LG Monitor	Host PC Monitor
1	Speedlink Keyboard	Host PC keyboard

1	Optical mouse	Host PC mouse
1	ATEM Mixer Control application	
1	Telestream WIRECAST PRO	Streaming and Production SW
1	BMD DECKLINK SDI	Capture card
1	Pinnacle Studio 16	Editing SW

Applications

The ATEM Constrol application is used to control the sources, the multiviewer the switcher as well as configure the Vision Mixer. For more details refer to the manual (in electronic form in the Documentation folder on the Host PC).

The Wirecast application is the most flexible and powerful streaming application in the market today and can be used to stream to multiple destinations and to record the final output.

The Pinnacle Studio application is the easiest and powerful editing applications for performing quick cuts in order to reach a final edit for uploading adter the lecture.

Installation and custom parts

The highest quality parts were used and customized where necessary. Great care was given to the easy management of the systems and the quick and safe deployment.

	Installation and custom parts	
1	Powercase, custom flight case	τροχήλατο σύστημα μεταφοράς εξοπλισμού
1	πολύμπριζο ασφαλείας	Πολύμπριζο με ασφάλεια και φίλτρα ρεύματος
1	πολύμπριζο 6 θέσεων	
2	πολύμπριζα 2 θέσεων με 15μ καλώδιο	
1	DLINK Switch DGS-1008D, 8-Port 10/100/1000Mbps	μη απαραίτητο - υπερκαλύπτεται από δεύτερη κάρτα δικτύου που τοποθετείται στον Host PC
1	Θήκη με εγχειρίδια του εξοπλισμού	

Appendix A – Parts list

	Camera and Tripod equipment parts list	
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	πολύμπριζο 6 θέσεων	
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1	Θήκη με εγχειρίδια του εξοπλισμού	

Appendix C – Project Change Procedure

Any changes affecting the operations described in this document (SOW) must be agreed by both parties. For the clearer management of the project and in order to avoid back and forth at the implementation stage these changes should be properly agreed and documented. As these changes may delay the completion of the project both parties should give such requests maximum priority to minimize the delays. Each request should include at least below information

(copy paste below section into email copied to parties mentioned in section RECIPIENTS & APPROVALS)

Project Name,
Request Date,
Requestee,
Attn of,
Request (title),
Request Description (Paragraph),

Following this the recipient must send confirmation of receipt, otherwise communication should be initiated to clarify the request so that a written confirmation is sent.

A clear copy of the above request must be created and signed by the customer and the contractor and be archived with the project documentation.

Appendix N – Rack layout

Operational Notes

Amy Digital Video (Amy SA),

[David Chalkidis, President]