

Report from visiting University of Maribor

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Activity 3.3 Purchase and install equipment

As it was announced in previous reports, this visit to Maribor was supposed to be devoted to training of configuring and using various e-learning equipment.

The main goals were:

- to investigate the hardware realization of multimedia featured classrooms on FERI, and potentially at some others Faculties of the Maribor University
- to investigate practical issues regarding the use of mentioned features in education,
- to find out which software supports the e-learning environment examined
- to form basic configuration solution for the multimedia classroom at Technical faculty Čačak, including the software and infrastructure support

The resources and methods for the realization of given goals were:

- Documentation describing existing technology at FERI
- Papers describing hardware configuration at Distance Learning Center in Tuzla as well as the pre-model for the future classroom in Čačak, based on this Center's conference room
- Direct examination of the equipment
- Interviews with personnel responsible for the examined equipment
- Consulting with authoritative personnel in this field, particularly with the Tempus grant holder dr. Debevc

Activities taken:

1. Visiting the Gama classroom

I have visited the Gama 4 classroom at FERI. This classroom is used regularly for educational purposes as a classical classroom, but has certain multimedia capabilities. Gama is equipped with a LCD screen, cameras and speakers, video-projector and document camera, all connected to the PC and an administrative touch-screen console, and further attached to the multimedia accessories in the back room.

These accessories include a mounted rack components such as: Sony videoconference system (PCS series), audio mixer, video switch and so on. Actually, there are three back-rooms, of which the second is not in use, and the third is equipped with translating devices (like a translating cabinet). The presenter's place is equipped with a microphone and its desk panel may be elevated to adjust to the presenter. Furthermore, it's equipped with electric outlet and network port as well – in-desk. However, there has been mentioned that such a socket desk-support isn't satisfying: there should exist the VGA and audio connectors too! Under the whiteboard there is a variety of sockets – electric, VGA, network and so on.



This classroom is meant take part in video conference sessions with other similarly equipped rooms at the Faculty, also with the others facilities with appropriate video-conference support. However, such a session has never been established!

Some observations:

- The presenter's place lacks of both the VGA and PC-audio support.
- LCD TV is a useful solution only for visitors in first few rows
- The PC is equipped with Windows XP and is a domain member.

2. Visiting the HipuLab (G 217)

FERI's HipuLab is known as a state-of-the-art high-end multimedia classroom. It's designed in 2003 according to the latest educational, ergonomic and technological recommendations. Its main purposes are:

- Using multimedia technology for the lessons preparation
- Lesson recording
- E-learning lesson creation
- Establishing video-conferencing sessions
- Creation of electronic tests

Its default capacity is 16 workplaces, extendable up to 25 places.

The main parts of the HipuLab are: video-conference system, video-recording system, audio-system and local network.

Some observations:

- A substantial effort was made to gain space for both projections and the white board on the wall – as seen on the Image 2. The second projector's beam (the one on the right) lands on the smart board's surface. This surface is also planned for the document camera's projection.
- Almost all main parts are situated in the separate cabinet (extracted in the right corner of the Image 2).
- The used video-conferencing system is Falcon IP.
- General-purpose cabinets, built from the ground up to the ceiling make an economical solution for various objects storage.

3. Visiting Faculty of pedagogy

Faculty of Pedagogy also possesses multimedia featured classroom. This classroom's main purpose is to provide technological ambient for pedagogical practice for future teachers, related to the use of modern technologies in education. Among several computer work-places, the classroom is equipped with various audio-video devices, such as TV, VCR, web-cameras and so on. The classroom's look is presented on the Image 3. I was guided by Professor Marjan Krašna.

The video-conferencing room is located in the separate room, with view to the classroom. It's equipped with embedded video-conferencing system (in a PCI card), mounted digital-camera, several web-cameras, audio-video mixer, audio mixer, wireless tie microphone etc.

Notes:

- Professor Krašna has strongly recommended the exclusive use of the tie wireless microphone, which gives full freedom of move to the presenter.

- Severe problems have emerged in video-conferencing communication with Teacher faculty at Sombor. Most likely, the cause was loosely configured router at this faculty. There was no such problem with others endpoints.
- The communication in such a small room (the separated one, mentioned before – where the video-conferencing system resides) may be a problem in case there is a need for more freedom, viewable objects presenting objects etc.
- For video-editing purposes students use Windows integrated programs and Ulead Studio.
- The classroom is equipped with NetOp School software suit

Draft classroom solution at the Technical Faculty of Čačak (codename HyperLab)

First version preview

This is based on the previously presented analyses, as well as on the proposal made by prof. Samra Mujačić

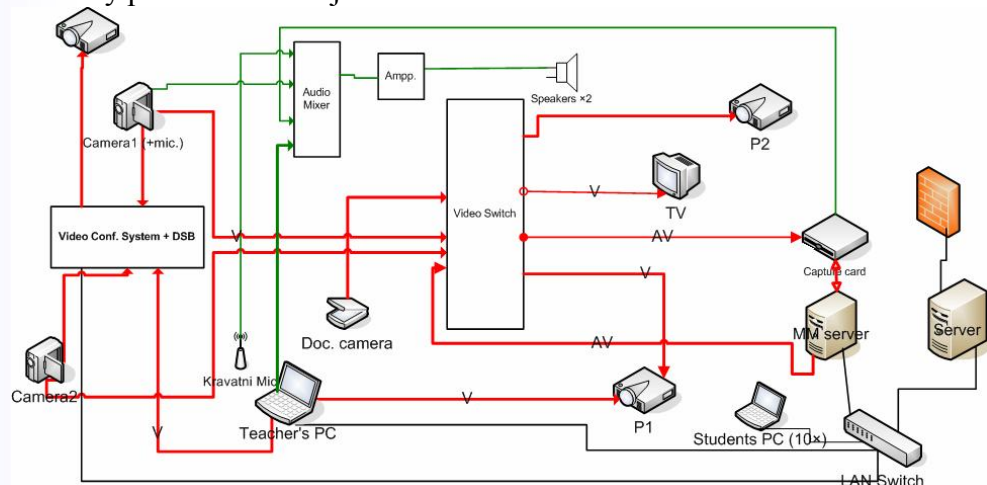


Figure 1. Video-audio-network structure for the planned classroom

The system presented is a mix between the Gamma and the HipuLab solution. It is planned to satisfy numerous education requests and to provide both instrument for learning and resource for training about using technologies.

Summary, the core planned classroom capabilities are:

- Video conferencing with multiple participants, with ability to preview a presentation at the remote site
- Video material real-time recording and reproducing via streaming server
- Paper document presentation
- LCMS integration

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