

Training Tool: Network Games Developed for the Modular TE Project

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1. RESOURCES and OBJECTIVES of THE TRAINING TOOL

Development of the attractive training tools was mentioned in the project proposal with the aim to provide the area for implementation of innovative aspects and trends into modular curricula. There was established that the first proposals of the training tools should be prepared by Czech (Euroface Consulting) and Bulgarian (VTU) partners. After the methods and required processes achieved, both of the partners should produce two original training tools. The responsibility was given to Czech and Bulgarian partners for their high technical facilities.

Experience of the company Euroface Consulting is closely related to the broad area of Information and Communication Technology and its implementation in educational process. The company experts develop original interactive learning web pages usable for distance or combined learning.

In Modular TE project there was decided to establish a practical tool from the area of Information and Communication Technologies which should serve as a support to theoretical training materials. The accent was given to the computer network and different components included there. The main objective of the web training tool was decided to explain the students the mutual relations between components of computer network and make the study of this area more attractive.

The proposed learning methodology was determined as web tool for independent distance learning or for work in small groups in classroom environment equipped by PC with Internet connection.

The first proposal established by experts from Euroface Consulting was discussed firstly with representative of University Duisburg-Essen, Dr. Jürgen Wehling, expert for ICT education. The second draft was presented at partnership meeting in Prague and discussion among partners lead to visualisation of the training tool final design.

2. DESIGN OF THE TRAINING TOOL

Introduction screen

The main aim of the web training tool design was to be attractive for students and in close relation to technology training materials. The introduction screen creates the Figure 1.

The application of modern technology allows making the first screen fully interactive and controlling the web by several ways: by click on different images or from main scrolling menu.

The advanced possibilities of web search are available.

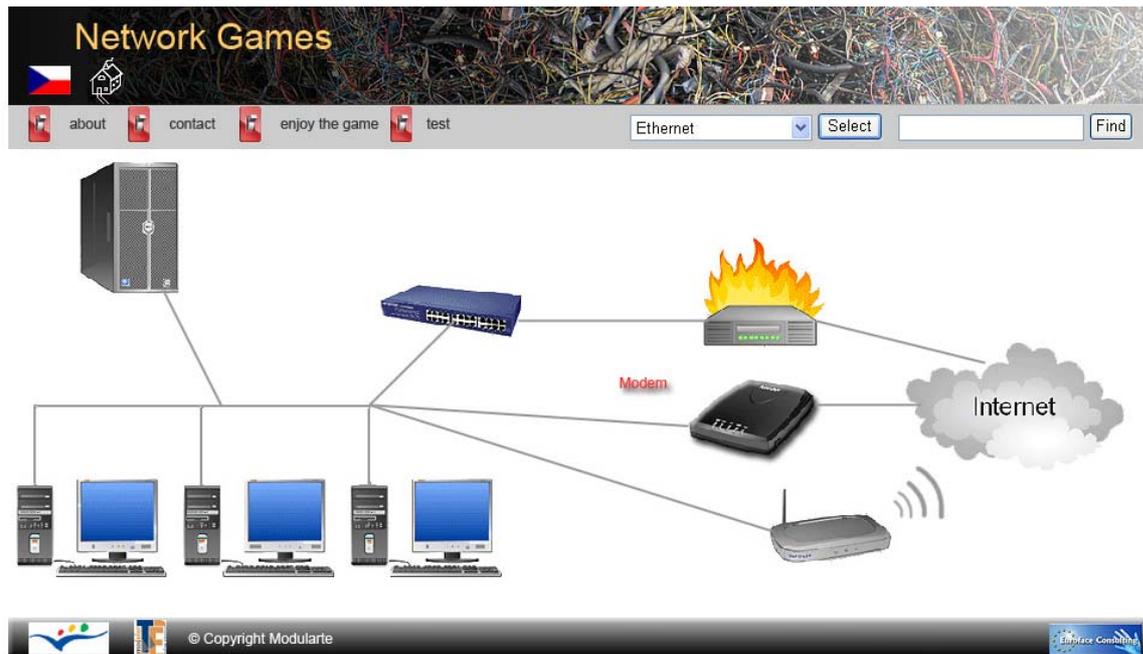


Figure 1: Network simulation game (introduction screen)

Main menu

The main menu of the tool offers following items – About, Contact, Game and Test:

- 1) About – in this part the students can find general information about the project, about project objectives, link to the project homepage and to partner's organisations web sites, list of resources.
- 2) Contact – by click on “contact” button the students can get information about all partners' organisations.
- 3) Game – the main objective of this item is to entertain the trainees and stimulate them for further study of ICT. Students can play with a puzzle of repeater.
- 4) Test – test with intermediate feedback allows checking the knowledge of students acquired by use of training tool.

Options from picture on introduction screen

In the image of PC network on introduction screen there is possible to click on different parts:

- Server
- PC network (LAN)
- Active components
- Firewall
- Modem

- Wi-Fi
- Internet

There are available the main chapters which are further structured to sub-chapters and interconnected to each other.

All the chapters are available also from the scrolling menu at homepage.

The homepage pictures

By open the one main part the trainee can continue to other parts through links and interconnections. In texts there can be found some attractions which should make the explanation of IT issues more interesting.

Simple simulations implemented there help the students to understand to principles of different components operation. Example of the used simulation is displayed in Figure 2.

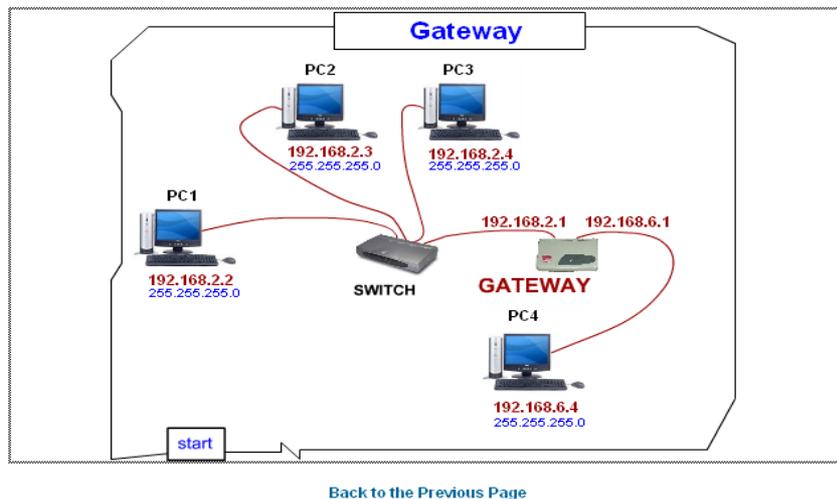


Figure 2: Example of simulation

3. CONCLUSION

Information and Communication Technologies (ICT) create the part of general technology which is developing the most fastest and herewith is very comprehensive, associating very much of different components. These aspects make the ICT one of the most attractive parts of general technology but at the same time very exacting area for education in conformity with modern technology development.

These establishments lead to the decision to support the training material for ICT by the attractive and original training tool developed according to the modern technologies.

The fulfilling of this main objective was evaluated positively during the evaluation process in Czech Republic and within the international project partnership. The implementation of the training tool into modular technology education was evaluated as easy and acceptable by professionals.

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