

**COMPREHENSIVE ANALYSIS OF EXISTING LEARNING MANAGEMENT SYSTEMS  
(LMSs)**

*May 2002*

<b>Name of institution:</b>	<i>Lokálne stredisko dištančného vzdelávania pri Slovenskej Technickej Univerzite Bratislava Local Centre of Distance Education (LCDE) at Slovak University of Technology (STU) in Bratislava</i>
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<b>Name of training manager:(Optional)</b>	
<b>LMS used:</b>	<i>In house developed</i>
<b>URL of LMS:</b>	<i>http://hercules.kar.elf.stuba.sk/~targroup/snls/start/ http://hercules.kar.elf.stuba.sk/tar/projects http://hercules.kar.elf.stuba.sk/tar/ts/</i>
<b>Language of LMS:</b>	<i>Slovak</i>
<b>Number of years in use:</b>	<i>1</i>
<b>Other LMSs used:</b>	
<b>Number of students in the system:</b>	<i>30+30+300</i>
<b>Number of courses available:</b>	<i>2</i>
<b>Typical duration:</b>	<i>arbitrary</i>
<b>Number of tutors in the system:</b>	<i>3+6+6</i>

**Local Centre of Distance Education (LCDE)** was established by the Rector of the STU on May 1, 1996 at Slovak University of Technology (STU) in Bratislava. LCDE is a member of the Slovak Network of Distance Education.

LCDE's aim:

- Support of all aspects of the flexible learning provision of universities in the region of Bratislava/Western Slovakia (incl. Open and Distance Learning).
- Development & support of modern educational technologies and DE forms of higher and adult education programmes.
- Continuing education and re-training in the areas: Industrial, Information and Communication Technologies, Language Education for Specific Purposes, Management, Pedagogy.

*This analysis is divided into six parts.*

*1 Course development tools*

*2 Student support tools*

*3 Tutor support tools*

*4 Administration (student database and records)*

*5 Technology (quality of software)*

*6 Price*

## **1 Course development tools**

1.1 *Course creation.* How satisfactory was the LMS for course creation?

The system has been fully satisfactory. [LCDE]

1.2 *Structure and didactic flexibility - openness.* In the creation of course materials did the LMS permit didactic flexibility? Was the structure open to differing didactic possibilities?

A fixed structure of course support was given. [LCDE]

1.3 *Teacher user friendliness.* How easy was the LMS to use by teachers and course developers?

After familiarisation with the environment the use is not complicated. [LCDE]

1.4 *Support for graphics, audio and video, moving image.* Did the LMS support the provision of graphical materials, moving images, audio and video in the course content?

Yes, but it was not used. [LCDE]

1.5 *Questioning, assessment, assignments.* What provision was made by the LMS for student questioning and assessment and the design of student assignments?

Questioning - by test, assessment in points is made public, automated submission of ready assignments. [LCDE]

## **2 Student support tools**

2.1 *Interactivity possibilities.* What provision does the LMS make for student interaction?

Yes. [LCDE]

2.2 *Online student to student communication (synchronous and asynchronous).* What facilities does the LMS provide for student communication to other students and how successful is it? Is both synchronous and asynchronous communication between students supported?

There is forum, and chat is being prepared. [LCDE]

2.3 *Online student to tutor/institution communication (synchronous and asynchronous).* What facilities does the LMS provide for student communication to the tutor ion to the institution's administration and how successful is it? Is both synchronous and asynchronous communication supported? Are these support services available 24 hours a day?

There are e-mail and forum available. Since the server is all the time on these services are available 24 hours a day. [LCDE]

- 2.4 *Resources, library, references.* What facilities does the LMS provide for student acquisition of resources required by the course, especially library resources and references to required readings?

The lecturer has the possibility continuously make his / her lectures' materials public in the Internet in the form of pdf documents. It is possible to put there also links to other websites. [LCDE]

- 2.5 *Feedback on work and assignments.* What is the quality of provision of feedback to students on their work and assignments?

Assessment in points can be added by written comment. [LCDE]

### 3 *Tutor Support tools*

- 3.1 *Tracking students - database questions.* How user friendly is the LMS for tutors wishing to track their group(s) of students and retrieve data from the student database?

On-line from any computer that is connected to the Internet. [LCDE]

- 3.2 *Group management tools.* What facilities are provided by the LMS to the tutors for managing their group(s) of students?

Students' administration, discussion forums, practical classes, lectures, links,... [LCDE]

- 3.3 *Preparation of questions and assignments by tutor.* How successful is the LMS in providing tutors with user friendly and didactically successful tools for the design of student questions and assignments?

It is supported. [LCDE]

- 3.4 *Course planning for students (monitoring pace).* What tools are provided by the LMS to tutors to enable them to monitor and plan student progress?

Only within assessment. [LCDE]

- 3.5 *User-friendly administrative systems between tutor and institution.* What provision does the LMS make for successful tutor to institution communication?

Those, which were mentioned in previous points. [LCDE]

### 4 *Administration (student database and records)*

- 4.1 *Enrolment procedures and fee paying.* What facilities does the LMS provide for student enrolments, course allocations and payment of fees?

Only regular students of the university can be registered. [LCDE]

- 4.2 *Passwords and security.* How successfully does the LMS handle student access to the system and the security of all student interactions with the system?

Each student has his / her own password into the chosen parts. [LCDE]

4.3 *Student records database.* How successful is the system's student database, especially for data storage and data retrieval.

It is in the testing phase, until now there have not been significant problems. [LCDE]

4.4 *Examination and certification records.* What structures are provided for recording of data and results leading to examination and certification?

The final assessment in points is the base for an exam. [LCDE]

4.5 *Course, class and tutors database.* What facilities are provided for administration of courses, classes and tutors?

The tutor can define the number of lectures and practical classes. [LCDE]

## 5 *Technology (quality of software)*

5.1 *Server - hardware and software options.* What is the quality of server hardware and software options? How is the system integrated with existing software?

A basic quality of the server - hardware is OK and free software. The integration into the existing software is just planned at the moment. [LCDE]

5.2 *Client - hardware and software options.* What is the quality of client hardware and software options? Does the system permit metatagging?

The client needs PC with not high requirements with Web browser. Meta tagging has not been tested. [LCDE]

5.3 *Flexibility of didactic structure; updating, adaptability.* Is the didactic structure flexible or is it determined by the technology? How adaptable is the technology to updates and to new technology that becomes available to the market?

The system has been built with the target of flexibility of didactic structure and that has been reached. [LCDE]

5.4 *Limitation of size (number of students, courses, tutors.)* How satisfactory is the LMS for handling varying numbers of students, courses, tutors? How does it cope with 100, 1000, or 10000 students and large course databases?

For the moment we are on a limited number and no problems have occurred until now. [LCDE]

5.5 *Speed of system.* How is the speed of the system and student satisfaction? How does it cope with downloading courses and high bandwidth materials?

For the moment we are on a limited number and no problems have occurred until now. [LCDE]

## 6 *Price*

6.1 *Cost of the LMS (Learning Management System).* What is the cost of the LMS to the institution?

Zero - the LMS was developed within students' projects. [LCDE]

6.2 *Annual fee.* What fees have to be paid annually for the system by the institution?

None. [LCDE]

6.3 *Student Enrolment fee (100 students, 1000 students, 10000 students.)* How do fees to use the LMS vary when the student base is 100 students, 1000 students, 10000 students? Is online invoicing available?

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6.4 *Maintenance costs: staff involved in management, IT specialists, trainers, etc* What is the maintenance course to the institution of the LMS and what staff resources are need to maintain it and keep it functioning?

One person takes care of the server run and more people co-operate on the permanent development. [LCDE]

6.5 *Training of teachers and learners and system users.* What costs are involved in staff and student training to use the LMS system?

At the moment it is in the phase of testing so there are no price expenses / costs; only time is needed[LCDE].

**Conclusion: Overall evaluation:**

**The system is being built and the benefit / advantage is that its single parts can be used already at the present, what makes the work of involved / interested teachers more easy and visible.** [LCDE]

**What features would you like to see included in this LMS in the future?**

**Interconnection of all created modules.** [LCDE]