

## **Coaching and Training Critical to todays Organisational environment.**

Many organisations are faced with the need to effectively and efficiently coach and train staff to ensure maximum organisational performance. Initiatives that require caching and

Training include:

- Product Launches
- Staff Development e.g. New Starts,
- Systems Implementations and Upgrades
- Organisational Integration
- Legislation
- Skills Building e.g. Languages, Accountancy etc
- Health and Safety

## **Issues with current Training Environments.**

Training can be extremely costly requiring Face to Face contact, Travel and time spent out of the job. Effectiveness is also difficult to measure and ensuring staff attend all courses can be a major issue.

Computer and Web based techniques have transformed training in the past decade but can be expensive to build and maintain needing the participation of trainers and technical IT experts. CBT also often has limited ability to track student progress and prompt for responses

## **GENEXIS an integrated approach**

GENEXIS is an e-learning solution based on an exercise generation engine that makes the learning process more efficient, attractive and engaging. It embodies not only on “just-in-time” and “just-for-you” principles but also the “learning-by-doing” principle. Data Pro Grupa Ltd. (or Data Pro Group) has been working on developing innovative computerised learning systems since 2006. The initial release of GENEXIS focused on developing a learning platform for vocational education and training. Subsequent releases mean that today GENEXIS can be used as a fully online or partially online e-learning solution for any subject or study program and for users in Business, Education, Government etc.

Key aspects of GENEXIS include:

- A unique exercise generation engine allows individuals and organisations to use GENEXIS to complement any study course and program or to develop completely new online courses in a successful and creative way. See Appendix A
- Individual exercises can be built into a series of integrated programmes as required.
- The exercise generation has been developed so it can be used by trainers – not IT specialists, exercises can include Video, Images, 2D and 3D graphs
- Trainers can configure exercises as:
  - Ask a question in textual form and receive a multiple choice answer
  - Ask questions in a repeating format and get a answer, an example of this at a simplistic level is teaching a 12x table where the system will ask a random set of values to a participant
  - Show a diagram and ask questions on the Diagram
  - Show a Video Clip and then ask questions
- A learning management system that monitors user access and responses to exercises, and reports on activity to course supervisors. All personal statistics and information is stored for audit purposes
- The tests can be printed if required to form hand-out materials (e.g., written tests/exams)
- Virtual communication is prompted between Course providers and learners
- Facility to prompt users by e-mails that further modules of learning programmes are available to them.
- The GENEXIS platform can be branded to support organisational trademarks etc.
- The GENEXIS platform is based on standard Internet technology and can be delivered over almost any browser.

- The system can be purchased by an organisation or rented on a per seat basis for a DataPro service provider
- GENEXIS is a multilingual system currently available in English
- Other languages can be added on request
- Full security and help desk support are provided

Data Pro Group program developers and product managers are continuing to work on improving GENEXIS with additional functionality.

## The Technology

GenExis system was developed using the latest Microsoft .NET technologies and C# language. Microsoft Windows Communication Foundation (WCF) is used for communication with portal and desktop. With WCF it is easy to enable new services and integrate with systems using other platforms.

### Student portal

Students work with GenExis using the Internet browser. Supported browsers are Mozilla Firefox 3.0 and Internet Explorer 7.0. GenExis works correctly where the user work station meets the requirements of the named browsers.

### Teacher application

Teachers work using the GenExis Desktop application which can be installed on computers working equipped using Microsoft Windows XP SP2 or Vista. Minimum hardware requirements are as follows:

- 256 MB of operative memory;
- Processor with minimum of 1.5 GHz frequency;
- 500 MB of hard disk space.

### Server Information

Server uses Microsoft Windows 2003, 2008 Server Operation System and uses MS SQL Server 2005 database. Minimum hardware requirements for GenExis are:

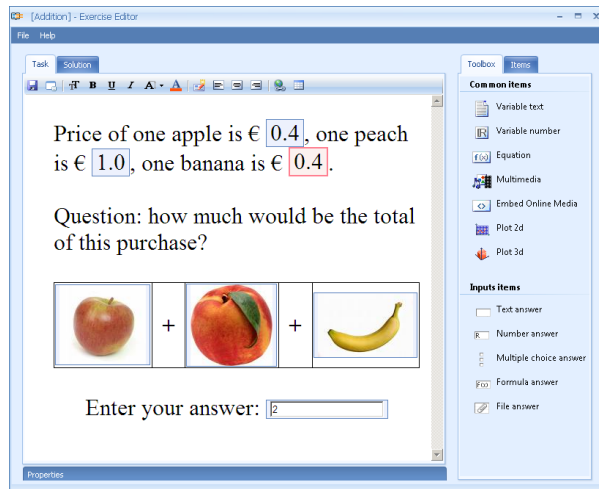
- 3 GB of operative memory;
- Two Intel Xeon processors with at least 3 GHz frequency;

- Hard drive with high speed data transfer and free space of 50 GB.

## Appendix A

### GENEXIS Description of the Exercise Editor

The Major difference between GenExis and typical distance learning systems is the exercise editor (pic. №1). The Editor is unique because of its ability to create not only simple questions, but also complex exercises, fulfilled with rich multimedia and dynamic changeable content.

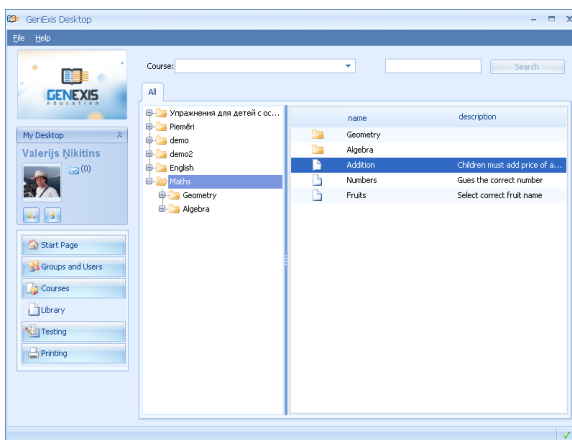


Exercises can be constructed with text and with multimedia items introduced into the text. Each item has the potential to represent multiple variants based on the data within the item. Dynamic content is achieved by using the variants within these items. The Editor is appropriate for users with entry level computer knowledge and it works as easily as playing with a constructor toy. There are no other analogs in the world of distance learning systems delivering functionality that enable a teacher to create dynamic changeable content and deliver it as distance learning, instantly.

## GENEXIS for the teacher

Teachers use GenExis using a special application which makes it possible to:

1. use existing theory and exercises and adapt them for the Educational Organization's special needs;
2. deliver learning to students in the classroom by using computers or using printed versions of exercises or at a distance in the home or on placement;
3. track the student progress and assess attainment and knowledge level;

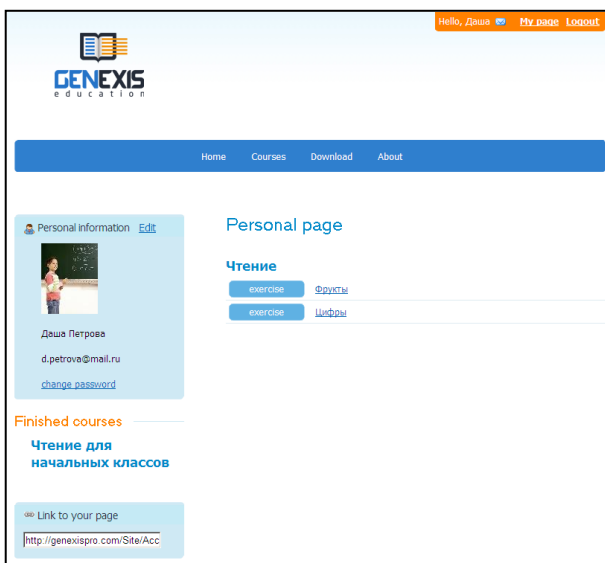


4. sustain distance learning using GenExis as a communication and learning management system.

List of the primary functionality available for course providers:

Functionality	Description
<b>Groups and Users</b>	<ul style="list-style-type: none"> <li>Invite or register new students and teachers</li> <li>Create new groups of students</li> <li>Administer and manage users</li> </ul>
<b>Courses</b>	<ul style="list-style-type: none"> <li>Manage user access rights</li> <li>Create exams/tests and work programs</li> <li>provide feedback to students ongoing and at the end of the course</li> </ul>
<b>Library</b>	<ul style="list-style-type: none"> <li>Create learning content and exercises</li> <li>Re-use and adapt existing content and exercises</li> <li>Exchange content with other educational organizations registered on GenExis</li> </ul>
<b>Testing</b>	<ul style="list-style-type: none"> <li>Review, control and correct student output</li> </ul>
<b>Printing</b>	<ul style="list-style-type: none"> <li>Print exercises</li> <li>Verify results</li> </ul>
<b>Statistics</b>	<ul style="list-style-type: none"> <li>Assess student knowledge</li> <li>Review student progress</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>Send and receive messages with text and attachments.</li> <li>Put course related news and information on blogs</li> </ul>

## GENEXIS for students



GenExis student learning activities take place using the internet portal. Students use their login and password to access the portal. The Portal is accessible at the school or learning centre, at home or anywhere which is internet-enabled. Using the GenExis portal, students can master content by practice, receiving new learning content and communicating with teachers and peers. The enriched educational process can comprise the study of theory, exercises, tests and control activities.

Lists of courses and contents are available on the student's personal page. Course

content can be easily managed by the teacher. Each exercise includes: description, questions and solution steps. Each time the student runs the exercise the intelligent system generates a new random variant. The exercise changes each time; this encourages students to use the same exercise many times over and assists promoting understanding and embedding of the knowledge content.

Functionality available for student using GENEXIS;

Functionality	Description
<b>User profile</b>	Manage personal profile and settings Reset password
<b>List of current courses</b>	Open and study exercises with theoretical content Work on exercises with questions and tests Undergo control and tests
<b>Finished courses</b>	Receive teacher feedback ongoing and at course end Make feedback and results accessible on the internet
<b>List of all courses</b>	Check available courses within the educational organization
<b>Incoming messages</b>	Communication with other users in the educational organization
<b>Setup</b>	GenExis application download for teachers