

Financial / Administrative co-ordinator

Name: Dipl.-Math. Maria Oelinger
 Address: Lotharstr. 63/65, D-47057 Duisburg
 Phone Numbers: +49-203-379-1329 Fax Numbers: +49-203-379-3557
 E-mail: oelinger@collide.info Project website: http://www.coldex.info

Executive Summary

The present report refers to work progress that took place during
 M22-M24, i.e. March to May 2004

1- Overview

Objectives

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
WP 4: Remote scenarios Testing (M24) <ul style="list-style-type: none"> • Test the prototypes and modify them according to the user needs and requirements (Task 4.3) 	<p>UDUI Elaboration of Cool Modes Metadata and Archiving Mechanism.</p> <p>UCH</p> <ul style="list-style-type: none"> • Testing of the Astronomy Scenario. Here UCH had some problems with the focusing mechanism of the telescope. They are working on it. • Testing of the seismo scenario. UCH is testing the seismo scenario for a real networking environment. There are still some problems with the software that has to be installed locally on each school (Freestyler and Java Palette). The network is working. <p>USB Design of generic experiment protocol finished. Started implementation of generator which produces protocol handler from specification. Application in the biosphere scenario planned for autumn.</p> <p>UPM (Leader in WP4) Task 4.2:</p> <ul style="list-style-type: none"> • UPM has made some corrections to the software of the chemical scenarion at the UNED. • Continued work in the API for the UPM-Telescope, implementing some of its functionality via "Web services".

<i>Objectives</i>	<i>Progress towards achieving objectives</i>									
	<ul style="list-style-type: none"> UPM has developed a laboratory planification tool that we would like to integrate in the chemical and astronomical scenario. <p>Task 4.3: UPM has performed many tests with the chemical scenario at the UNED.</p> <p>Task 4.4: UPM has been giving support to chemical scenario at the UNED.</p>									
<p>WP 5: Local scenarios Testing (M24)</p> <ul style="list-style-type: none"> Test the prototypes and modify them according to the user needs and requirements (Task 5.3) 	<p>UDUI Refinement of the Maze scenario.</p> <p>UCH Testing of the CiC platform with the developed plugins for FreeStyler in order to use DEXTs in the classroom collaboratively.</p> <p>VXU Task 5.2: Establish local learning communities.</p> <p>USB Simulation modelling tool and 3D earth quake simulation ready.</p> <p>UNED UNED includes the final deployment of the chemistry scenario, including the remote use of an infrared spectrum, the planning and monitoring of this year pilot. The following table summarises the number of students involved.</p> <p>Evaluating in chemistry domain</p> <table border="1" data-bbox="678 1406 1364 1599"> <thead> <tr> <th>Course</th> <th>Subject</th> <th>Student Number</th> </tr> </thead> <tbody> <tr> <td>2002-2003</td> <td>Fundamentos Químicos de la Ingeniería</td> <td>49</td> </tr> <tr> <td>2003-2004</td> <td>Fundamentos Químicos de la Ingeniería</td> <td>52</td> </tr> </tbody> </table> <p>INESC-ID (Leader in WP5)</p> <ul style="list-style-type: none"> Study and implementation of the biological model of greenhouses developed by an expert of the domain. Coordination of the BeLife work. Support in the use of the Framework. Update of the ION-Agent's framework to the requirements of the BeLife system. Writing of the paper submitted to ABS. Implementation of the weather model based on the portuguese weather characteristics. Implementation of the time scale controller. 	Course	Subject	Student Number	2002-2003	Fundamentos Químicos de la Ingeniería	49	2003-2004	Fundamentos Químicos de la Ingeniería	52
Course	Subject	Student Number								
2002-2003	Fundamentos Químicos de la Ingeniería	49								
2003-2004	Fundamentos Químicos de la Ingeniería	52								

<i>Objectives</i>	<i>Progress towards achieving objectives</i>
	<ul style="list-style-type: none"> • Creation of the BeLife world using the ION Agents framework. • Specific cultures for the biological model are currently being implemented. • Study and comprehension of the biological plant model prepared by the agronomics expert.
<p>WP 6: Communication and pedagogical networking Testing (M24)</p> <ul style="list-style-type: none"> • Test the developed COLDEX-server software and modify it according to the user needs and requirements (Task 6.3) 	<p>UDUI Elaboration of Cool Modes Metadata and Archiving Mechanism in order to enrich the LOR system.</p> <p>UNED A redesign of the architecture and a first prototype (used in the 1st OUS workshop in May) have been carried out.</p> <p>For the COLDEX architecture, currently we have four components: The COLDEX portal, the Knowledge Manager, the Social Manager and the Learning Object Repository. The final of D.6.1.1 (July '04) will include the technical description.</p> <p>Coldex Portal Access Guidelines http://sensei.lsi.uned.es/~bbarros/lor/</p>
<p>WP 7: Open User Scheme</p>	<p>UDUI First Open User Scheme Workshop in Buenos Aires, Argentina, 10 – 11 May 2004; presentations and demonstrations for the purpose of get a larger user community.</p> <p>UCH Preparation of the chilean delegation to the OUS meeting in Buenos Aires.</p> <p>VXU Establishing connections to Latin America educational institutions. Carry out activities for the formation of an initial user community in Sweden.</p> <p>USB Cooperation with geography department to develop and test learning material for moon crater scenario in class.</p> <p>INESC-ID</p> <ul style="list-style-type: none"> • Preparation of suitable documentation and presentations to explain the BeLife project to teachers and involve them in the design activity. • Planning of specific experiments regarding user interface design issues and the use of multiple external representations in virtual environments.

WP 8: Evaluation	UDUI Preparing of further pupils' workshop for the maze scenario for evaluation issues.
	UCH Evaluation of the plugins developed for a java lecture in the CiC.
	VXU (Leader) Elaboration of ideas and methods for the final evaluation plan outlined in a draft.
	INESC-ID Preparation of questionnaires, guides for interviews and design material for the design sessions with system informants (teachers and students).

1.1 Milestones

Milestone	Planned date	Actual date	Comments
Milestone08 - System Prototype I	30 Nov 2003	30 Nov 2003 (preliminary)	<ul style="list-style-type: none"> The telescope could be working, however we still don't have a dome and we can't use it in the laboratory. However we can control it completely via web and we manage the images from it. The chemical laboratory prototype has been finished. We have finished a scheduling tool for remote labs. However it hasn't been integrated yet in any laboratory.
Milestone10 - Continuous enlargement of the user group WP7	30 Nov 2003 to 29 Feb 2005		Ongoing task
Milestone12 – Final prototype WP4	31 May 2004		
Milestone13 – Final prototype WP5	31 May 2004		
Milestone14 – Server network ready WP6	31 May 2004		

1.2 Deliverables

<i>Deliverable Code & Name</i>	<i>Planned delivery date</i>	<i>Actual delivery date</i>	<i>Comments</i>
D1.2.1 – Project presentation (brochure, website, video)	30 Nov 2002 30 Nov 2003 30 Nov 2004		to be relased with subsequent updates
D1.3.1 Quality Plan	30 Nov 2002	14 Jun 2004	
D2.2.2 – Collaborative Scenarios	31 May 2003	16 Mar 2004	
D2.3.2 / D8.1.1 – Evaluation Plan	31. Jan 2004	18 Mar 2004	Final for Evaluation Plan I: "Methodology and Examples" <ul style="list-style-type: none"> • Final version of the following deliverable: D2.3.2: Evaluation plan • Final Draft for the Evaluation plan, deliverable: 8.1.1
D4.2.1/D5.2.1/D6.2.1 – System Prototype	31 Jan 2004		The deliverable D4.2.1 System Prototype 1 is not finished yet.
D6.1.1 – Network Specification	31 May 2003		Will be finalised in July
D7.2.1 – Learning Material and Guidelines	29 Feb 2004		
D4.3.1/D5.3.1/D6.3.1 – Final Prototype	30 Jun 2004		next reporting period
D7.2.2 – Functional Documentation	30 Jun 2004		next reporting period

1.3 Deviations from Plan

<i>Causes and Description</i>	<i>Corrective actions</i>
Overall delay in deliverables	All deliverables due will be finalised for the review.
We have had some delay in the deliverable D4.2.1. because one of the persons incharged of it has been dissmised from November 28th until February 10th. He had an accident and he broke both legs. Furthermore, since we don't get paid from the EC, we had to fire the two people who were working in the project and now the are working some hours without been paid.	

2 - Contractual Arrangements

-

3 - Project Meetings (held and foreseen)

<i>Title</i>	<i>Date and Place</i>	<i>Main conclusions</i>
Project meeting	1 – 2 July 2004 Duisburg, Germany	Preparatory project meeting for the review
Second project review	Sep 2004 in Växjö, Sweden	

4 - Dissemination / Promotional Information**4.1 Conferences and / or Workshops organised / foreseen by the project**

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
23-25 March 2004	WMTE 2003, Taiwan	Milrad, M., Hoppe, U., Gottdenker, J., & Jansen, M. (2003). Exploring the Use of Mobile Devices to Facilitate Educational Interoperability around Digitally Enhanced Experiments. To be published at Proceedings of The 2nd IEEE International Workshop on Wireless and Mobile Technologies in Education (WMTE), March 23-25, 2004, Taiwan.
23-25 March 2004	WMTE 2003, Taiwan	Jansen, M., Oelinger, M., Hoeksema, K., Hoppe, U. (2004). An Interactive Maze Scenario with Physical Robots and Other Smart Devices. In: Jeremy Rochelle, Tak-Wai Chan, Kinshuk, Stephen J. H. Yang (eds). Proceedings of the 2nd IEEE International Workshop on Wireless and Mobile Technologies in Education, WMTE 2004, Los Alamitos, California (USA), pp 83-90
31 March 2004	Technical trade fair, Germany	Oelinger, M., Ritzenhoff, J., Schmidt, P. Presentation and demonstration of COLDEX scenarios at a technical trade fair for pupils in Bottrop, Germany
1 April 2004	Araby school, Växjö, Sweden	Initial presentations and further discussions
20 April 2004	Xperiment Huset, Växjö, Sweden	Araby school at the Xperiment house Presentations of the COLDEX project for teachers
22 April 2004	Girl's Day, Germany	Oelinger, M. Presentation and demonstration of COLDEX scenarios for girls and women at the University of Duisburg-Essen, Germany.
27 April 2004	Katedral school, Växjö, Sweden	Initial presentations and further discussions.
30 April 2004	HCTG seminars, Sussex	Presentation of the BeLife project at the Human Centred Technology Group seminars, University of Sussex.
3 – 5 May 2004	Workshop on Agent-Based Simulation, Lisbon, Portugal	Presentation of the paper "BeLife: Teaching Greenhouse Management using an Agent based simulator" at the 5th Workshop on Agent-Based Simulation, SCS Press, in Lisbon.

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
3 – 6 May 2004	Edumat, Chivilcoy, Argentina	Two plenary talks: <ul style="list-style-type: none"> • Milrad, M. (2004): "Uso del Modelaje y las Simulaciones en forma computacional como soporte de procesos cognitivos en Educación Matemática" • Hoppe, U. (2004): "Medios Computacionales Interactivos-Colaborativos para el modelado en clases de ciencias y matemáticas" (math education symposium in Chivilcoy with around 150 participants)
5 May 2004	Araby school, Växjö, Sweden	Software presentation Initial presentations and further discussions.
15 May 2004	Master course, Lisbon, Portugal	Presentation of the BeLife project integrated on a seminar of a Master course in Faculdade de Motricidade Humana, Universidade Técnica
10 – 11 May 2004	OUS Workshop Buenos Aires, Argentina	23 persons, participants representing nine different institutions from six Latin American countries (Venezuela, Colombia, Brazil, Paraguay, Argentina and Chile; please see attached list of participants) Presentations of the COLDEX project and demonstration and presentation of the COLDEX LOR and Archiving; <ul style="list-style-type: none"> • Hoppe, U.: "Proyecto Europeo COLDEX – Collaborative Learning and Distributed Experimentation – Visión y Enfoque Principal" • Milrad, M.: "COLDEX OUS - El enfoque pedagógico de COLDEX" • Oelinger, M.: "Educational Networking and Archiving: the LOR" Material (mainly in Spanish, minutes, Cool Modes examples and HowTos, tools, images, presentation) available at www.coldex.info/OUS/materials/ Invitation, press material, agenda and OUS brochure (most in Spanish) available at www.coldex.info/OUS/ Invitation, press release, participant list, agenda and OUS brochure are also enclosed as attachments
18 May 2004	Xperiment Huset, Växjö, Sweden	Katedral school at the Xperiment house Presentations of the COLDEX project for teachers

<i>Date</i>	<i>Title</i>	<i>Number of persons attended + other information</i>
July 2004	Duisburg, Germany	Call for proposals of co-operative activities at partner sites based on COLDEX scenarios / DeXTs; these projects will be clearly focused on specific target groups (schools / classes or teacher education). There is a good chance to initiate 4-6 cooperation activities with partners from Latin America.
December 2004 (or in 2005)	Europe	Second COLDEX-OUS workshop with invited participants, reporting on cooperative OUS activities.
		Preparation of a paper to be submitted to the CELDA 2004 conference.

4.2 Articles Published, Press coverage etc.

<i>Date and Type</i>	<i>Details</i>
April / May 2004	Extension of the COLDEX Website: Adding subsite for OUS: www.coldex.info/OUS/
April / May 2004	Adding COLDEX brochure for OUS to website: www.coldex.info
May 2004	Press release concerning the OUS workshop (see attachment)
8 May 2004 – La Razon de Chivilcoy	Newspaper article "Finalizó anoche el VI Simposio de Educación Matemática" (see also 4.1 Conferences)

5 - Main results

<i>Description</i>	<i>Details</i>
Software prototypes	<ul style="list-style-type: none"> • Web services for the telescopes • Scenarios / Cool Modes Reference Frames: Astro, Moon Crater and Maze • Seismic scenario • Chemistry scenario prototype • COLDEX portal prototype (LOR)
Telescope prototypes	The telescope laboratory prototype is almost finished. However we can't use it in a real situation because we don't have a dome or budget for purchasing it.

6 - Project Effort

The effort for the reporting period and the cumulative effort to-day is presented as an Excel sheet which is attached to this management report.

Summary

In this reporting period the focus was on testing the prototypes and enlargement of the user group, further more on the pre-evaluation.

Overall assessment of the main milestones achieved, or results delivered

An up-and-coming perspective for the project is the enlargement of the user group which is located on both continents, Europe and Latin America. The collaboration of users can be initiated within the Spanish speaking community in Spain and main parts of South America. Other collaboration capabilities are connections of English speaking groups, e.g. in Germany and Sweden. Interested schools and teachers are contacted by some of the partners.

Problems encountered and decisions taken

There are still several issues due. This will be a central discussion point at the project meeting at UDUI, 1. – 2. July 2004. Some deliverables will be elaborated to deliver a final which describes the most sophisticated version. Nevertheless, the deliverables are going to be delivered at least as a detailed preliminary version and the deadlines will be stricter. One COLDEX server is already running at UNED; in Duisburg and Växjö the hardware is available; the software will be installed as soon as the work package leader offers the final prototype incl. the technical details. Learning material and guidelines are currently collected and will be unified in the deliverable.

Conclusive statement on correspondence between planned project progress (as detailed in the Project Programme) and actual accomplishments

As soon as deliverables are received, the co-ordinator will make them available within the COLDEX website, www.coldex.info. As already said in the previous reporting period, the project management now is regaining delays by tighten strings in reporting record tasks. Conclusion of the actual project statement is that the project progress is still behind the time schedule, but the overall achievements are again on a high level and by now give the outlook of the project success which can be guaranteed if the current status is extrapolated.

Work progress overview

Specific objectives (for the reporting period)

For the prototypes, this reporting period allows for testing and modifying the prototypes to the user needs and requirements. This holds not only for the local and remote scenarios, but also for the COLDEX server. Dissemination and the enlargement of the user group are going on now very successfully.

Achievements

List of Deliverables

Detailed information is contained in the table 1.2 above. The reports (management and progress report) are also available within the website's deliverable area.

Progress by Workpackage / task

The tests for the prototypes are ongoing now. In WP 4 the Cool Modes metadata an archiving mechanism has been elaborated, astronomy and seismology scenarios are tested and the chemistry scenario software has been corrected. A scheduling tool – developed within WP 4 – will be available for various plannings. WP 5 contains a sophisticated version of the maze scenario. There is now a CiC platform with implemented plugins for FreeStyler to use DEXTs collaboratively in the classroom. User needs and requirements are also considered in the chemistry scenario which has been tested in two courses with 49 resp. 52 students. The biodiversity scenario has been elaborated: BeLife work is coordinated and the ION-Agent's framework has been updated. Furthermore there has been a weather model implemented. In WP 6 the Cool Modes metadata and archiving system will enrich the LOR (Learning Object Repository) system by providing learning objects including various metadata. The LOR has been re-designed and the COLDEX portal has been launched for testing. It was used already for the OUS workshop in Buenos Aires to show how it will be used for the OUS community which has been initiated.

WP 7 connects directly: Sweden formatted an initial user community, in Germany the maze scenario is prepared for a second workshop not only for enlarging the user group, but also for evaluation issues. For the astronomy scenario, namely the moon crater scenario, learning material is being developed with experts. The Open User Scheme workshop in Latin America found a very interested group of potential users and disseminator in teachers' education. The scenarios have been accepted utterly after a short hands-on session.

In WP 8 a students' workshop for the maze scenario has been prepared, mainly for user evaluation. A java lecture in the CiC has been evaluated by UCH. The final evaluation plan has been discussed. Questionnaires and material is being developed for the sessions in Portugal.

Deviations if any and corrective action

The deliverables due are being finalised; the D6.1.1 will be delivered in July, the prototypes will follow, too. The first part of the evaluation plan I (D2.3.2) is already sent, the second part (D8.1.1) is written as preliminary version. Some of the learning material and guidelines are already available for the user community at www.coldex.info/OUS/materials. A serious discussion of deadlines will be part of the next project meeting in July.

Project reviews

Follow-up of recommendations from previous review and / or preparation of inputs to upcoming review

The first review has taken place in July 2003. The delay is currently decreasing. The missing finals for the deliverables are elaborated and will be delivered soon, some in the next reporting period, i.e. in July.

Also the OUS workshop will enlarge the user group to a wider community in Latin America. Workshops in Sweden and Germany are planned, again for the target group. Of course all these activities will be reflected at appropriate conferences to disseminate the results to a scientific community.

The next review is envisaged for September 2004 likely to be held in Växjö.

Work planned for the next reporting period

(UDUI)

Testing of the maze scenario with a group of students on 9th June 2004 for evaluation issues.

(INESC)

a) Aims

- Conclusion of the implementation of the biological model.
- Continuation of the definition of the user interface and learning requirements and corresponding specifications.

b) Potential Issues

We do envision some challenges concerning the development of a user interface for blind learners as well as develop strategies to foster collaboration between blind and sighted learners.

Project Management

Contractual issues

The amendment has been completed; the clarification that the Chilean partners will not deliver cost statements are to come.

Co-operation within the consortium, including project meetings

The next project meeting will be held in Duisburg, Germany, 1. – 2. July 2004.

Contribution to clustering, concertation and standardisation

Like in the previous report, the main aspect here is the ongoing integration of web services which allow the connection to interfaces for various technologies to access the same data. Another aspect is the focus on the web interface elaboration. There is a web interface for several systems, namely the telescope control at UPM, a web interface for the metadata mechanism for Cool Modes documents and the portal on the COLDEX server.

Participation in workshops and / or conferences, publications, etc.

The detailed list can be seen in paragraph 4 above. There were contributions to the WMTE 2004, national dissemination, and presentations in Argentina – at a mathematical conference as well as at the OUS workshop.

Effort breakdown

Fundamental work being done in this reporting period is the ongoing testing of the software prototypes, focussing on user needs and requirements, the pre-evaluation and the enlargement of the user group.

The tests of the software has initiated some re-design and the tools are currently adapted to these knowledge. Afterwards the pool of prototypes can be opened to the user community. Some parts – e.g. Cool Modes with COLDEX-related plugins – has been already delivered to the users. The initial usage now can be extended.

The finalisation of the evaluation plan will consider the experiences of the user tests. The COLDEX learning object repository will connect users of different learning communities.

The recently developed components are published not only in conferences, but also for the local demand to extend the European user community for COLDEX.