



## Deliverable 9.3

### INTUITEL eXact Demonstrator

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<b>PU</b>	Public	
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1 **R**=Report, **P**=Prototype, **D**=Demonstrator, **O**=Other

2 **PU**=Public, **PP**=Restricted to other programme participants (including the Commission Services), **RE**=Restricted to a group specified by the consortium (including the Commission Services), **CO**=Confidential, only for members of the consortium (including the Commission Services)

## Change Control

### Document History

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# 1 Introduction

eXact learning LCMS<sup>3</sup> is a commercial Learning Content Management System supporting instantaneous, company-wide collaboration for the creation of critical learning content. Furthermore, being based on XML technology, the system is designed for the extensive reusability of content chunks, and supports SCORM 1.2 & 2004, IMS and Tin Can xAPI standards, allowing single-source multiple outputs publishing scenarios.

The LMS part, allowing content delivery, supports course offer and tracking of learners' progress.

eXact LCMS can now interact with the INTUITEL back-end by means of an extension that must be installed by an administrator. This extension provides that dialogue windows added to courses, supporting a dialogue between the learner and the INTUITEL reasoning. Of course, to make a course to be assisted by the INTUITEL tutor, the course needs to be previously annotated, i.e. by the INTUITEL Editor<sup>4</sup>. This piece of software is an installable program that allows the teachers to draw Learning Pathways<sup>5</sup> by connecting and grouping the Knowledge Objects of the course.

Hence, to observe the behavior of the system one needs an eXact platform, an INTUITEL back-end and a course linked with pedagogical metadata.

The INTUITEL Editor and the backend system components are publicly available from the Subversion repository located at:

<http://svn.ice-karlsruhe.de/repo/INTUITEL/trunk/>

(user *INTUITEL*, password *download*)

## 1.1 Content of the deliverable

This deliverable shows a sample INTUITEL-enhanced instance of eXact LCMS.

The setup contains an eXact LCMS server, a configured INTUITEL backend (Communication Layer configured with `comStyle=2` corresponding to "push with Learner polling") and a course with metadata information. The details to install INTUITEL from scratch can be found in the annex titled "*INTUITEL Startup Guide*".

The course is a subset of a real-world course given in the University of Valladolid to the students of Telecommunication Engineering. The contents are in Spanish because this is taught to Spanish students.

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<sup>3</sup> <http://www.exact-learning.com/exact-learning-lcms/>

<sup>4</sup> [http://www.intuitel.de/fileadmin/resources/INTUITEL\\_318496\\_D7\\_1\\_EditorDoc.pdf](http://www.intuitel.de/fileadmin/resources/INTUITEL_318496_D7_1_EditorDoc.pdf)

<sup>5</sup> Please, refer to former deliverables about pedagogical model theory and implementation, especially deliverables D2.1 and D2.2.

## 2 Demonstrator

### 2.1 Configuration of the INTUITEL extension for an eXact LCMS

INTUITEL extension for eXact is implemented as a set of REST web services plus some javascript that manage the windows dealing with the learner-INTUITEL dialogue. The implementation of the extension was described into D1.2 USE/TUG/LORE Interface, submitted by September 2013<sup>6</sup>. The set-up is very easy, just creating an IIS virtual directory to the folder containing the code of the web services.

### 2.2 Configuration of the Editor

As previously indicated, the course has to be linked with pedagogical metadata (before being actually delivered to learners). The INTUITEL Editor allows teachers to load learning objects from the LCMS, and creating the corresponding metadata that model knowledge objects, concept containers, macro and micro learning pathways. Once the contents of the course are annotated, and the INTUITEL extension is installed, INTUITEL will be able to provide the recommendations and feedback to students.

The editor can be installed in the local PC of the teacher. The specific LMS configuration required to connect to this demonstrator is:

- URL: <http://intuitel.exactls.com/extension/>
- Username: john
- Password: john11

### 2.3 Access to the demonstrator

The demonstrator INTUITEL course is available at

[http://intuitel.exactls.com/intuitel2/Planner/MyCourse.aspx?\\_courseId=6&ps](http://intuitel.exactls.com/intuitel2/Planner/MyCourse.aspx?_courseId=6&ps)

(student account: joe/joe11) and is presented like in Figure 1 .

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<sup>6</sup> The access level of the document is “restricted” therefore no public link is provided

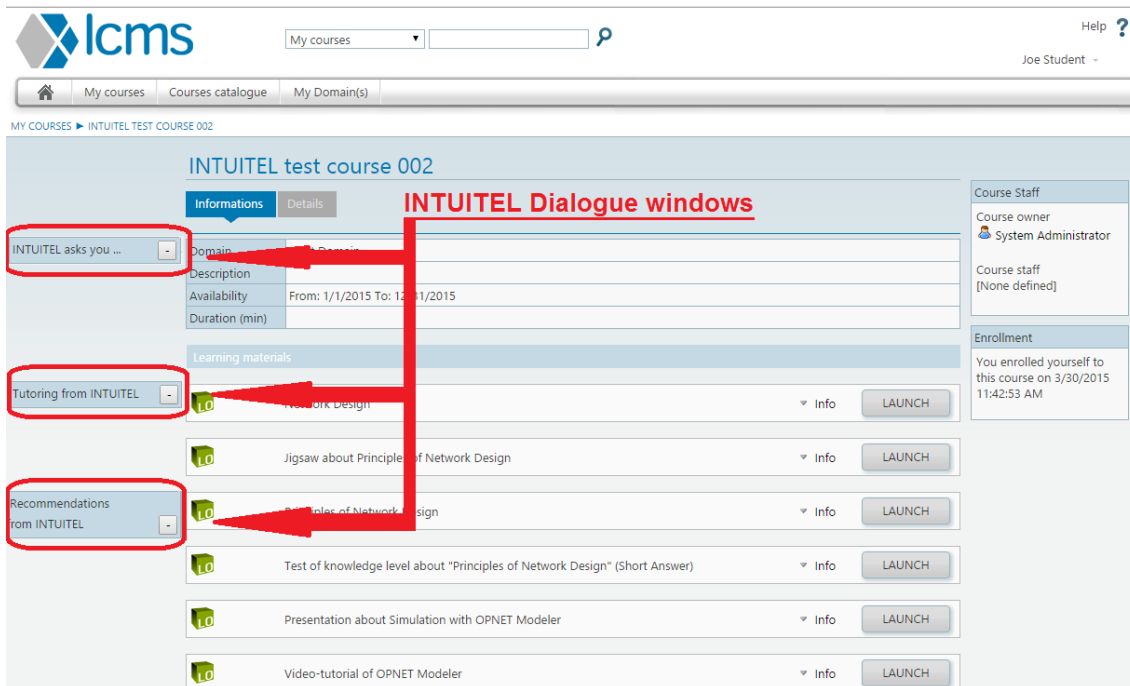


Figure 1. Sample INTUITEL-assisted course in eXact

Entering this course, the first evident novelty respect to non INTUITEL-enhanced courses is the appearance of three small labels on the left side, as highlighted in Figure 1. These labels can be expanded into small windows, which will manage the communication between INTUITEL and the learner.

## 2.4 Playing the course

Learners can access and play courses as usual. What is different with the INTUITEL extension is the appearance of three small labels on the left side. These labels can be expanded into small windows managing the communication between the learner and the INTUITEL core. These windows are presented in Figure 2.

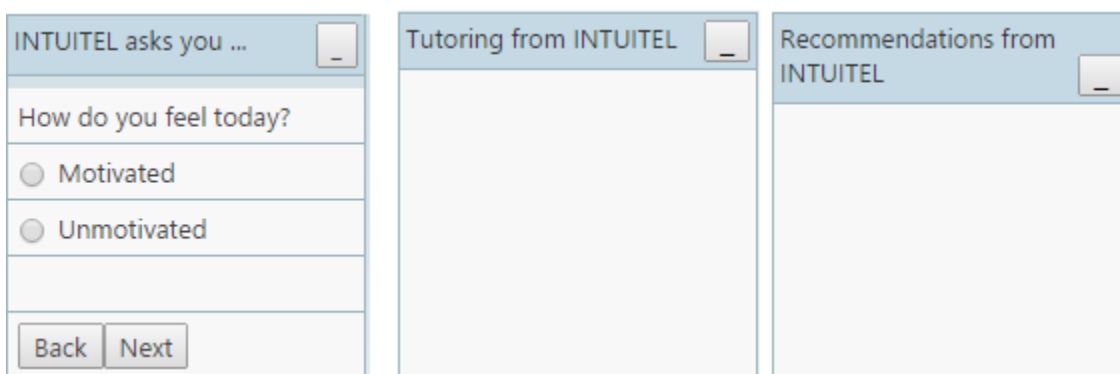


Figure 2. Windows for INTUITEL dialogue in eXact

INTUITEL-enabled courses in eXact present the three collapsible windows shown by Figure 2:

- A first window presents a few questions to the learner to store information that is not directly retrievable from the basic profile stored by the LMS, such as the daily mood, preferred interaction kind, etc...;
- A second window takes care of the tutoring dialogue, this corresponds to TUG messages. The TUG interface carries out a dialog between the learner and the INTUITEL system. A TUG Interface *must* be present in any INTUITEL enhanced system (please refer to D1.1 – Data Model<sup>7</sup> for further description of the TUG interface)
- The third window provides INTUITEL recommendations about the suggested learning path for the current learner, this corresponds to the LORE interface. The LORE interface makes a recommendation by the INTUITEL system known to the learner. It is, in its simplest implementation, a special case of the TUG interface and therefore present in any INTUITEL enhanced system (please refer again to D1.1 – Data Model<sup>8</sup> for further description of the LORE interface).

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<sup>7</sup> [http://www.intuitel.de/fileadmin/resources/INTUITEL\\_318496\\_D1\\_1\\_DataModel.pdf](http://www.intuitel.de/fileadmin/resources/INTUITEL_318496_D1_1_DataModel.pdf)

<sup>8</sup> [http://www.intuitel.de/fileadmin/resources/INTUITEL\\_318496\\_D1\\_1\\_DataModel.pdf](http://www.intuitel.de/fileadmin/resources/INTUITEL_318496_D1_1_DataModel.pdf)



### 3 Conclusions and outlook

This (very) short document describes the demonstrator of an INTUITEL-enhanced eXact LCMS. We provide a sample course to access and play with. The sample is not a full course as we tested only technical soundness so far; pedagogical testing is carried out by WP12 at the time of writing and will proceed during the last months of the project.

Key factors for the success of the INTUITEL extension in our opinion are:

- Pedagogical impact of the INTUITEL recommendations, this in turn relies both on the quality of the annotation (which kind of learning plans are defined by the teacher) and the quality of the recommendations elaborated by the INTUITEL reasoning
- Usability and degree of user-friendliness of the interface providing recommendations from the LMS: in order to be accepted and useful, recommendations need to be presented in a not-intrusive way, to be easy to understand and be actually supportive

From our tests so far, the conditions above are met enough for a prototypical stage and we expect some further progress from here until the end of the project.

For the last months until the end of the project we plan:

- to support the creation and INTUITEL annotation of further courses
- to be available for support to pilots set-up
- to be available for fixes and/or updates.