

Digital Business Ecosystem

**Workpackage 30: Transfer and Adoption
B28 - Distributed local content production**

Deliverable 30.5: Training content report 2



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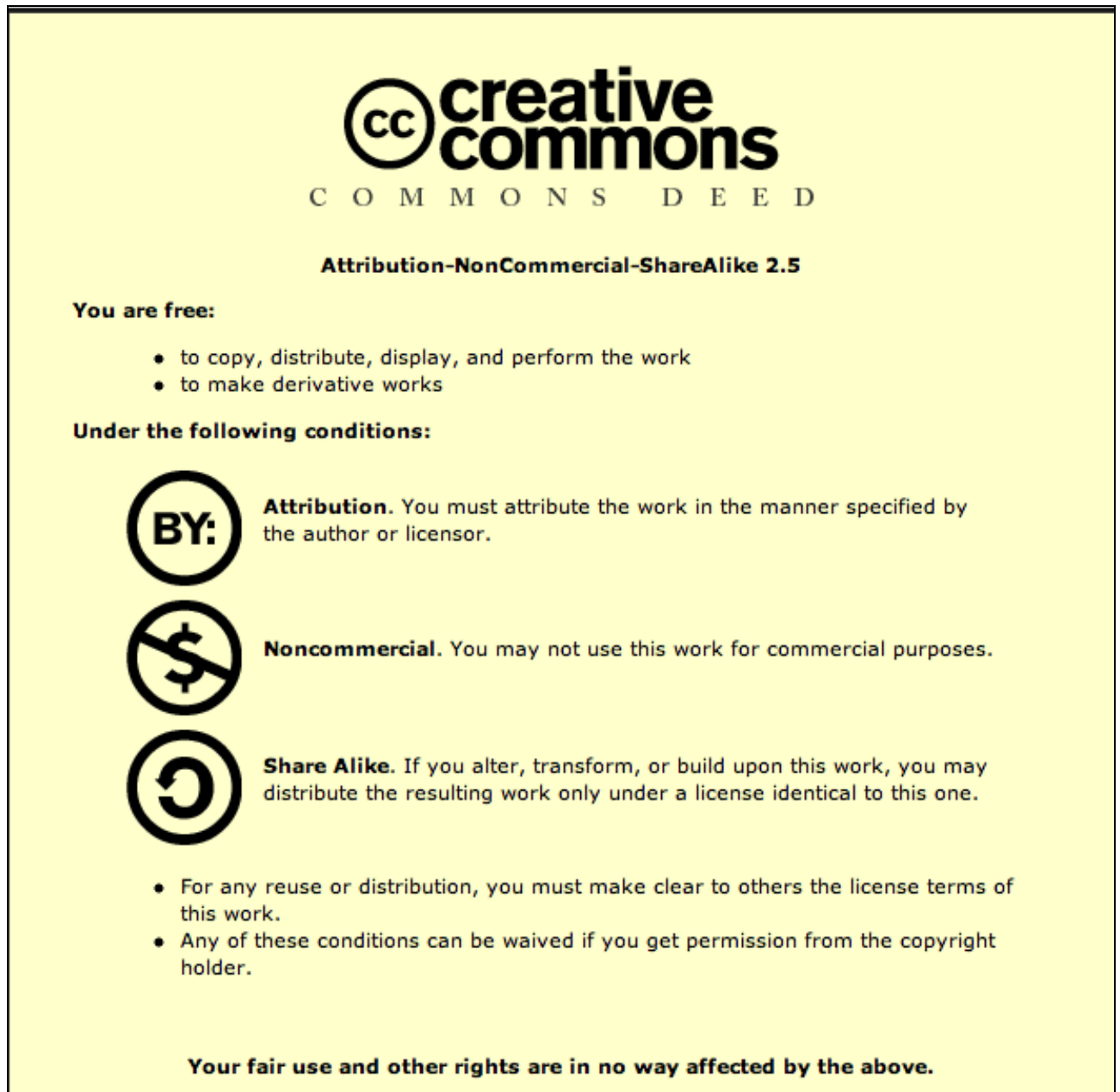


Table of content

1	<i>Executive summary</i>	6
2	<i>Deliverable Background</i>	7
3	<i>Training Content Development per Content Block</i>	8
3.1	DBE Induction (TCH)	9
3.1.1	Description of the Learning Block	9
3.1.2	Contents Produced.....	9
3.1.3	Future Delivery	10
3.1.4	Critical Support	10
3.2	SME Engagement (UCE)	11
3.2.1	Description of the Learning Block	11
3.2.2	Delivery Made.....	12
3.2.2.1	FADA WebCamera Demo	13
3.2.2.2	ExE Installation	14
3.2.2.3	UCEDateService	16
3.2.2.4	UCEDATE GUI SERVICE	17
3.2.2.5	WebService to DBE Service	18
3.2.2.6	BML Modelling Sessions.....	19
3.2.2.7	BML Presentation	21
3.2.2.8	OpenLaslo UCEDateService.....	21
3.2.2.9	OpenLaszlo DBE WebCamera/BML	22
3.2.3	Future Delivery	23
3.2.4	Critical Support	23
3.3	Business Potentials and Practices (UCE)	24
3.3.1	Description of the Learning Block	24
3.3.2	Contents Produced.....	24
3.3.2.1	BML Treemaps	24
3.3.2.2	SugarCRM & Laszlo	25
3.3.2.3	RubyOnRails As CRUD Generator for the DBE	26
3.3.2.4	DBE In-a-Box	27
3.3.2.5	Weblog	28
3.3.3	Future Delivery	28
3.3.4	Critical Support	29
3.4	DBE Service Development (ITA)	30
3.4.1	Description of the Learning Block	30
3.4.2	Content Produced	30
3.4.2.1	ITA DBE Web site (http://www.ita.es/dbe/)	30
3.4.2.2	ExE SourceForge web site (http://swallow.sourceforge.net/).....	32
3.4.2.3	DBEStudio web site (http://dbestudio.sourceforge.net/).....	34
3.4.2.4	EvE web site (http://sourceforge.net/projects/evenet/).	35
3.4.3	Future Delivery	36
3.4.4	Critical Support	37
3.5	DBE Regional Policy impact & potential (T-6)	38
3.5.1	Description of the Learning Block	38

3.5.2	Contents Produced.....	38
3.5.3	Future Delivery	38
3.5.4	Critical Support	38
3.6	DBE Community tools, processes & development (Intel)	39
3.6.1	Description of the Learning Block	39
3.6.2	Contents Produced.....	40
3.6.3	Future Delivery	45
3.6.4	Critical Support	46
4	Conclusions	47

1 Executive summary

This document presents the contents produced up to the moment this deliverable is produced, namely, month 30 of the project. This document is a live document which will be updated as new contents are produced. This document belongs to a serie of three documents. There has been one previous document produced, Deliverable 30.3.1 Training content report 1, and there will be one more deliverable produced at the end of the project which will include the contents produced up to that date, Deliverable 30.9 Training content report 3.

As indicated in D28.1 and in the previous deliverable of this serie D30.3.1, the approach to training is closely aligned to the concept of the DBE project, which is characterised by its objective to be an evolving and adaptive self-organising system. A key principle in the learning strategy is that learning needs to be adaptive and should not be fully planned in advance, since a linear prediction would contradict the nature of the DBE project. Training needs, while predictable, are partly emergent and our strategy allows for the training mix to be fine-tuned according to actual needs of the project.

Following that line, the project is under development and then the training materials produced are continuously adapting and including those new technical parts. As new features appears, the training must include them and a “regression testing” of the contents produced must be done, in the sense that it has to be checked that the contents produced for already existing features are valid yet.

Indeed, this is something we have already experienced. Contents of some blocks (like the technical content block) have been produced and will be produced according the following process. First, it has to be concretely defined the expected results to be obtained from a target audience (SW Implementers, for example), then it must be produced the contents so that they will make the target audience learn the key information which will make them produce in an easier way the results we expect from them. Some of those concrete activities are derived from experience and feedback from some agents of the DBE project which make the contents to be an evolving and adaptive self-organising system. For example, SW developers requested to have service examples in order to better understand the integration process from the technical perspective and the DBE team did so.

The content development was already divided into learning blocks in D28.5 and each content block is lead by one partner and supported by others. The teams and roles of the team members in each learning block were identified there. The content development is dependent on the progress of the research activities as the base of the content comes from research results. This content blocks set the basis for most of the structure of the present document.

In the following sections of the document the contents produced up to the month 30 are presented. The second chapter briefly shows the background in which this deliverable is placed and the connectios to them. The third chapter focuses on the training content development. Here we follow the guidelines of the adopted training strategy by planning the content development per learning block as already indicated in D28.5.

In conclusions a short evaluation of the action plans of the previous sections is presented.

2 Deliverable Background

This deliverable is in line with the general training strategy explained in detailed in D28.1 and more concretely with the structure of content blocks described in D28.5 which has already been mentioned. Indeed, the structure of this deliverable is guided by the content blocks concept.

The Deliverables “D30.4.1, D30.6 and D30.8 Training Delivery Report 1, 2 and 3” are very very closed to the present deliverable. Those deliverables present the activities and delivery made, and all those activities have support documentation indicated in this deliverable.

At this moment this deliverable is also related with the sustainability D34.5 and governance issues. One of the main objective of the contents produced is to recruit and train SMEs that are integrating and will integrate services/applications into the DBE. A further step expected from these SMEs is that they apply for new projects based on the DBE technology in regional, national and international programs which will guarantee the sustainability of the project. Additionally, if these SMEs are going to work with the DBE it is very important for them the governance issues.

Finally, and in line with the sustainability issues too, this document is related with the DBE and ERA D35.4. That document shows the main regional, national and international funding programs which may be used by SMEs. Then, SMEs trained with the contents presented in this deliverable will apply for projects and submit proposals to those programs.

3 Training Content Development per Content Block

This chapter presents the contents produced in the first 30 months per content block.

The learning modules for phase 2 regional training were revisited in the Business Domain meeting in London in August 2005. The active learning blocks for phase 2 and the partners leading the blocks are:

- DBE Induction (TCH)
- SME Engagement (UCE) (previously DBE Bootstrap strategy and processes)
- Business Potentials and Practices (UCE)
- DBE Service Development (ITA)
- DBE Regional Policy impact & potential (T-6)
- DBE Community tools, processes & development (Intel)

Each content block starts with a description of each of them, and then it is exposed the contents produced (where to find them), the future delivery and the critical support.

All the deliverables referred below may be found in the Official web site <http://www.digital-ecosystem.org/>.

3.1 DBE Induction (TCH)

3.1.1 Description of the Learning Block

As described in the D 28.11 Detailed Phase 2 Regional training action plan, the Induction learning block provides the learning content for the first engagement with different groups of agents, namely software developers, software users and influencers. The learning block begins when the agent (developer/user/influencer) gets the first knowledge about the DBE Project and it ends when the agent decides whether or not to participate in the DBE. The purpose of the Induction learning block is thus not to give a perfect and complete training on the different dimensions of the DBE, but instead a basic overview with adequate amount of relevant information for the target group to make the decision on whether or not the DBE is something to investigate further.

3.1.2 Contents Produced

The most important content for the Induction is the DBE Introduction Flash Movie presenting the basic idea and functionalities of DBE. The movie has been created by Intel and can be found from the front page of the official DBE website at <http://www.digital-ecosystem.org>.

In addition, there has been developed a lot of other documents related to induction. Here is presented only new induction training content created during the second phase of training activities. The previous documents related to induction can be found from the D30.3.1 Training content report 1.

Document Name	DBE introduction in Driver-Implementer seminar
Type of document	DBE aloitus Driver-Implementer.odp
Author	TCH
Summary	The presentation provides an overview of the DBE project, the partners involved, and the current status quo in regard to SMEs. Open office presentation in Finnish
Target audience	Potential Implementer SMEs

Document Name	DBE introduction in TCH internal training workshop
Type of document	DBE Verkostokehittäjä.odp
Author	TCH
Summary	The presentation provides an overview of the DBE project, the partners involved, the current status quo in regard to SMEs and analysis of the networking processes in within the DBE project. Open office presentation in Finnish
Target audience	ICT policymakers in TCH and Tampere region

Document Name	DBE introduction in National Network of eBusiness experts of Finland
Type of document	DBE VerLi.odp
Author	TCH

Summary	The presentation provides an overview of the DBE project, the partners involved, the financing and SME engagement model and short introduction to the technologies used in the DBE. Open office presentation in Finnish
Target audience	ICT policymakers in Finland

The main induction dissemination activities made in the Aragon region may be seen in www.ita.es/dbe in the “**ITA Training>> Dissemination**” section. All the documents used in those events may be downloaded from there, and those documents have also been used in the one-to one meetings held with all the agents in the region.

It may be seen there that the main three induction events were:

- Public Presentation Zaragoza which contain the most interesting presentation at that time in all the aspects of the project (technical and business and science). Those presentation were used in the induction phase for politicians and other influencers, potential drivers and potential users. Obviously, not all the presentations were used for all the agents profile, namely, depending on the target agent, a different presentation was used.
- Public Presentation Walqa. There is a presentation there which was used to engage Phase I Implementer SMEs. It is a good general summary of the project and it is focused in the technical part, which is the part that SW Developer want to know mainly.
- Implementers Phase II is the presentation used to engage SW Developer SMEs of the second round of Implementers. The new technical features and concepts are included.

3.1.3 Future Delivery

Practically all content needed for this content block has been developed. This content will be developed further to meet the requirements of the SMEs based on their feedback. Also the content will be altered for different target audiences as is seen fit by the users of training content. In induction training block needs for these changes are not very big as the objective of induction is merely give the first impression of DBE to the target audiences.

3.1.4 Critical Support

Induction leads into further training to be delivered and this content needs to meet the expectations given to the target audience in the induction module. The objective of the training activities is not interested in different training “modules” and thus the change from induction to for example SME engagement should happen as unnoticed as possible.

3.2 SME Engagement (UCE)

For the purpose of this deliverable, SME Engagement refers to the concept of how the Regional Catalyst interacted with SMEs throughout the training activities. Rather than one single engagement, the engagement process could be characterised as a series of events where the SMEs acquired specific knowledge related to the DBE principles and tools as they were made available from a practical perspective.

Although main events such as “code camps” were organised (time/space fixed, “synchronous”, training), engagement was also delivered by means of support and specific ad-hoc triggered by specific learning needs.

As the DBE is an evolving set of tools and even work methods (from “Server/Client” to “P2P”), the RCs tried to provide continuous support and interacted with other domains (i.e. computing domain) to inquire and solve specific issues or questions that SMEs have during their period of engagement.

From this perspective, the RCs took the role of mentors, dedicating time and listening to the SMEs needs and wants and maintaining open conversation about the latest news and releases from the project and also listening to their feedback.

In terms of learning needs for the engagement, the SMEs informally requested training related on how to do things on the platform especially from a technical perspective. For this reason the engagement training has a more practical and technical perspective than a conceptual one.

3.2.1 Description of the Learning Block

Different learning blocks were produced/reused or adapted, customising them to the needs of the SMEs at the point of delivery. When preparing content for the SMEs, there were several issues that need to be considered:

- What are their technical capabilities and skills set. For example, it is necessary to investigate to what level the SME was capable of implementing software in Java, if Java was not one of their main platforms that they use or experience using Eclipse.
- Understanding of DBE related computing principles. The flash movies were a good introduction to the DBE from a conceptual perspective. However the DBE is a highly complex architecture and some of the ideas that the DBE implements are inherently technical (i.e. Java proxy, semantic web, genetic programming, fitness function, flooding algorithm, MDA, XMI, etc). While it was not necessary to reveal all the details of the architecture during the initial engagements, it was required to show to SMEs the potential of the architecture in order to show what was different or new compared to, for instance, Web Services.
- Open source. As the DBE is an open source, it was necessary to assess to whether the SME knew about OS, was already an OS user or perhaps an active member of the OS project.
- Managing SME expectations with regards to the DBE technology at all times: What was ready, what was coming soon (with explicit time frames), what kind of support was available and future roadmap.

With this principles, the learning blocks evolved as the DBE tools were made available. Rather than having a single learning block, small bite-size blocks were developed to explain, illustrate and practice with specific aspects of the DBE platform from a technical perspective. The following section will describe the specifics of each learning block.

3.2.2 Delivery Made

A website following the popular “weblog” format was created in order to provide an informal and chronological space where to put content as it was made available. The content prepared also reflected the level to which RC was available to acquire knowledge from the rest of the DBE partners (i.e. computing tools, etc).



The weblog was also used to communicate news related to the DBE, such as new software releases, important events or even ideas.

Before the materials before were uploaded into the weblog, they were first tested locally and then with SMEs for correctness and fix potential content issues. It is necessary to note that although the content was made to be as accessible as possible, sometimes it was required for the SME to have previous knowledge of specific aspects of a technology (i.e. Java, P2P or Eclipse). When possible, some of the demonstrators were made available for live testing for SMEs.

The delivery took place physically by different means, such as one-to-one during meetings, meetings with more than one SME held as a networking events among SMEs participating on

the DBE, personal email exchanges, chat rooms, voice over IP conversations and “Code Camps”.

From a content perspective, some of the materials were obsolete as new parts of the platform were made available that helped to automate part of the development. For example, initially the deployment of services was done manually while with the latest version of the DBEStudio the deployment could be done via a Wizard and therefore the initial approaches taught were made obsolete.

In some cases old content was recycled and adapted to the new tools/approaches. For instance, an early WebCamera demonstrator developed using FADA, was integrated later on with ExE and OpenLaszlo.

Specific details about how the actual delivery took place are detailed on the individual learning bite-size blocks, as content was mixed and matched according to the SME requirements, toolset availability and the context of the training.

The following sections will describe the individual bite-size learning blocks.

3.2.2.1 FADA WebCamera Demo

Learning Areas: ExE, FADA proxies concept, P2P, integration of legacy software

Delivery: One to one

Availability: Not available

In order to demonstrate some of the integration capabilities of FADA, a WebCamera demonstrator was developed. The demonstrator integrated two native applications (.NET and a custom WebCamera control) using FADA as the sole infrastructure software.

While the demo was quite simple in terms of the programming effort required to produce it, FADA played a role of showing how the proprietary applications were able to communicate.

The purpose of the demonstrator was to highlight this fact.

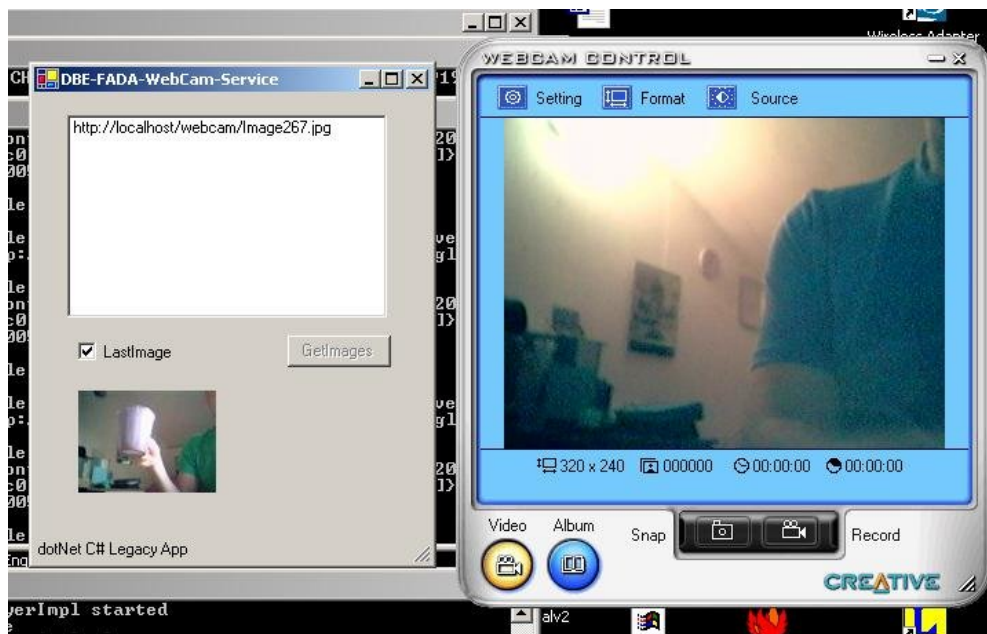


Figure 1 WebCamera Demo

Figure 1 illustrates the WebCamera demonstrator interface. While some of the underlying details of FADA were discussed with the SMEs, on this case the purpose was to learn about FADA/distributed computing concepts such as java proxies, lease protocol, etc.

Although from a developer's standpoint the FADA proxies are almost hidden by the ExE/DBEStudio when developing services, the proxies and lease protocols concepts are very important in order to understand the distributed computing concept that DBE implements.

3.2.2.2 ExE Installation

Learning Goal: Learn to install an instance of ExE (servENT + FADA)

Delivery: One to one, CodeCamp

Availability: <http://swallow.sourceforge.net> (platform)

http://www.digital-ecosystem.org/Members/victorbayon/ExE%20CodeCamp.ppt/file_view

Before any services could be developed for the ExE, the first step was to install the ExE, also known as by its sourceforge.net project name Swallow. SMEs were shown how to install an instance of the ExE and they learnt about the different configuration options provided by the ExE such as running the servENT and FADA on different nodes or web proxy settings.

During the installation, the different and complementary functionalities of FADA/servENT were explained, with FADA as the Peer 2 Peer overlay for service proxy search and discovery and servENT as the Client/Server container where the real services were executed.

This information was requested as SMEs were not aware (in the case of the West Midlands) of the history behind FADA and its integration with servENT. Also, some SMEs were not aware of concepts of service oriented architectures and training was provided.

Figure 2 below illustrates two slides from the materials used during the delivery. The figure on the left hand side shows an architectural diagram of (kindly provided by Sun

Microsystems) real/virtual ExE endpoints, whereas the figure on the right hand side shows the installation process of the ExE.

It is important to note that as the DBE continues to release new versions and new components, at the time that the tutorials were given the available version of the ExE was 1.4. The current version at the time of writing this report is 2.0, which currently integrates the Knowledge Base and Semantic Registry services.

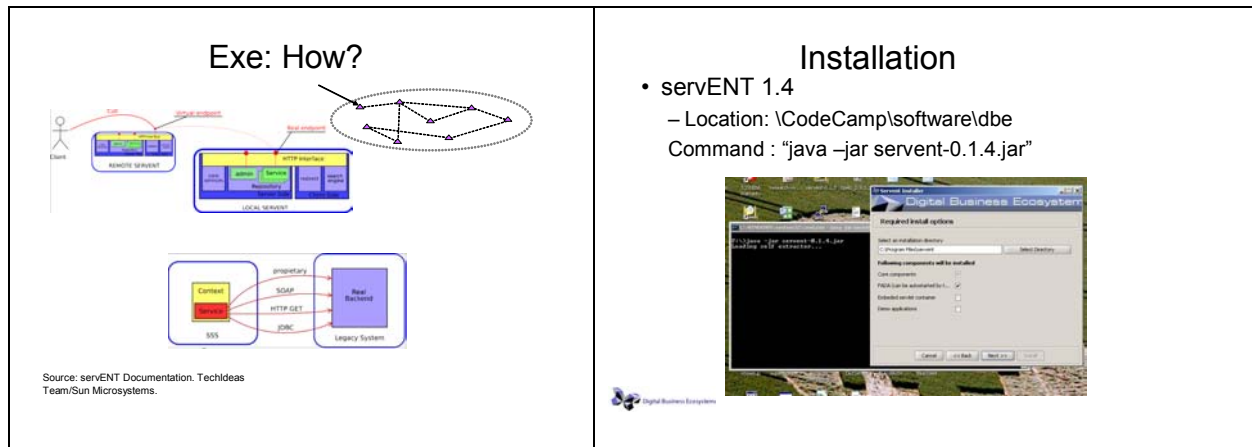


Figure 2 Materials used in delivery

Figure 3 illustrates an example topology of a FADA P2P overlay. As mentioned earlier, one key aspect of the ExE installation was to learn about why P2P and why it was important for the DBE vision to have such decentralised architecture.

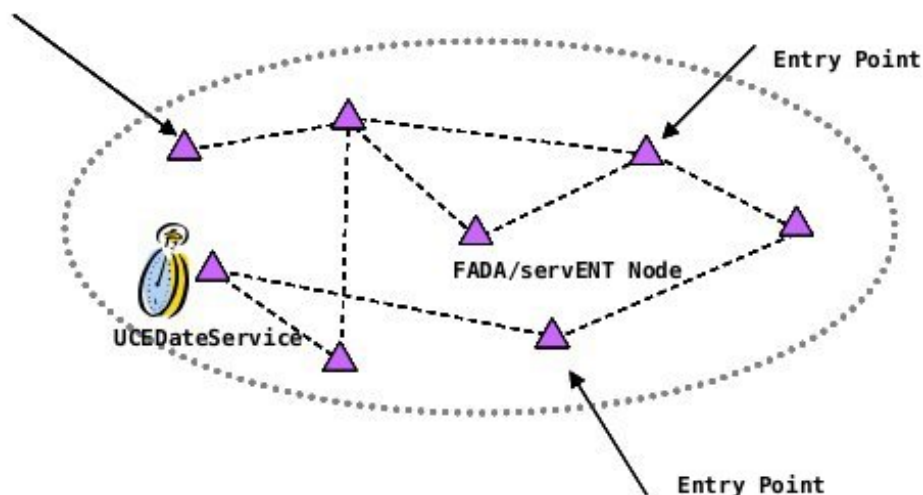


Figure 3 FADA P2P overlay

During the ExE installation tutorial SMEs also learnt about how to connect the different nodes and to realise the P2P overlay from a practical perspective (local multicast or http) using the web based management interface provided by FADA during runtime (http) or the FADA configuration tool (local multicast).

Figure 4 illustrates the usage of the FADA runtime management (http) interface for checking “Neighbors” or nodes that are part of the P2P overlay.

Installation: Checking (FADA)

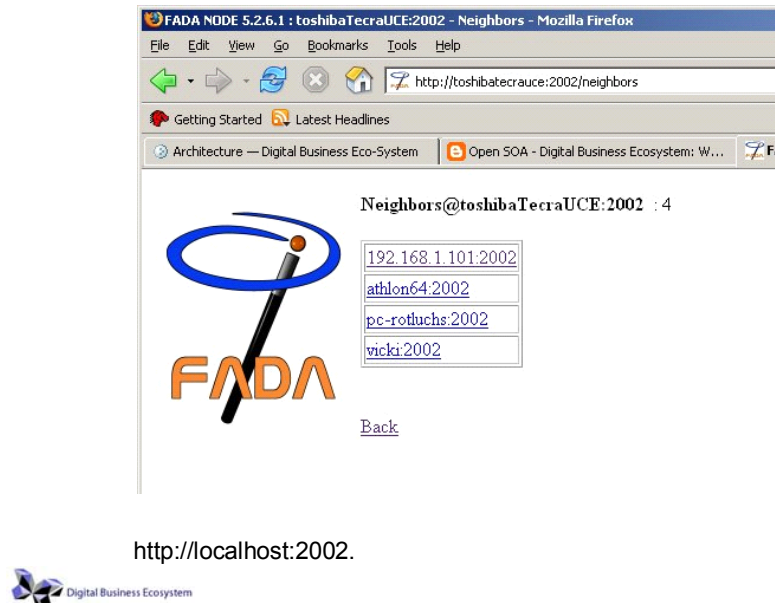


Figure 4 Confirming FADA neighbors

3.2.2.3 UCEDateService

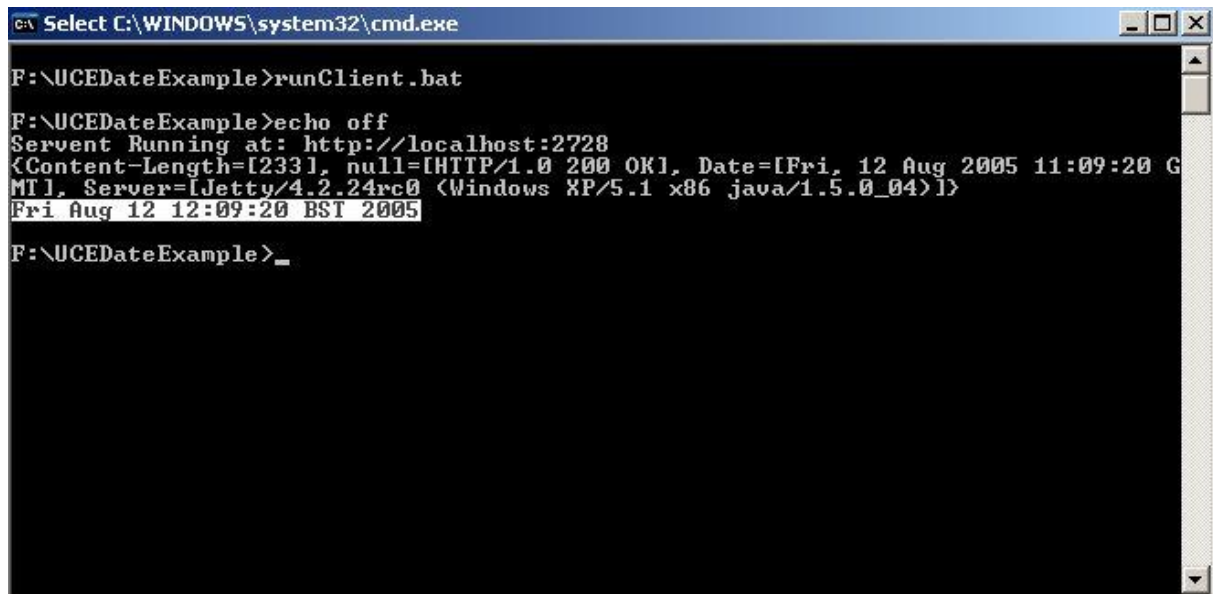
Learning Goal: Simple ExE Service Development, ExE Adapters

Delivery: CodeCamp, Online Tutorial, One to one

Available: <http://opensoa.blogspot.com/2005/08/what-time-is-it-dbe-service.html>

The purpose of the UCEDateService was to introduce, at its most basic level, an ExE service. The tutorial consisted on developing, compiling, deploying and running a service that retrieved the local time of the machine where the service was physically running.

With the developing stage, SMEs could get familiarised with the minimum requirements of extending an ExE “Adapter” class, or what was the minimum requirement to develop a DBE service. Figure 5 shows the result of executing the service.



```

Select C:\WINDOWS\system32\cmd.exe

F:\UCEDateExample>runClient.bat

F:\UCEDateExample>echo off
Server Running at: http://localhost:2728
<Content-Length=[233], null=[HTTP/1.0 200 OK], Date=[Fri, 12 Aug 2005 11:09:20 G
MT], Server=[Jetty/4.2.24rc0 <Windows XP/5.1 x86 java/1.5.0_04>]}
Fri Aug 12 12:09:20 BST 2005

F:\UCEDateExample>_

```

Figure 5 Executing the UCEDateService

3.2.2.4 UCEDATE GUI SERVICE

Learning Goal: P2P execution of a service; Service GUI.

Delivery: CodeCamp, Online Tutorial, One to one meetings.

Available: <http://opensoa.blogspot.com/2005/08/what-time-is-it-dbe-service.html>

At the time that the delivery was given, the DBE computing group was looking for a Graphical User Interface (GUI) technology and it was decided not to focus explicitly on developing Java SWING training content.

While it was explained how to provide a SWING GUI interface (some of the SMEs might require such functionality), the tutorial was in turn focused mainly on executing a service entering the DBE from different nodes, in a P2P fashion.

A critical learning outcome from the learning blocks was for SMEs to realise the potential of the distributed architecture. The Swallow sourceforge.net site states it very clearly:

*“The DBE Execution Environment is an application container that spontaneously builds, by means of communication with other DBE ExE instances, a P2P network overlay. This Java container isolates the programmer from the **P2P network coding complexity**. Applications are coded as a POJO (Plain Old Java Object) objects without any knowledge of distributed programming. This container provides the means to perform event propagation, service lookup, retrieval and instantiation.”*

The image below illustrates the concept by executing the service entering from the “LocalHost”, or entering the P2P from a different node (not shown).

DateService GUI I

- Running it as Traditional Client/Server
- Running it as a P2P Application

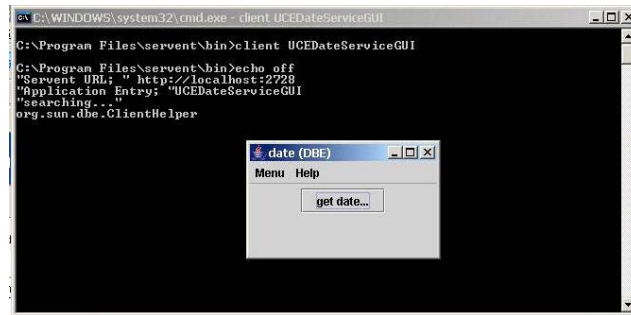


Figure 6. Running the service with GUI

3.2.2.5 *WebService to DBE Service*

Learning Goal: To integrate a WebService as a DBE Service, WSDL2Java

Delivery: CodeCamps, One to one meetings, Online Tutorial

Available: <http://opensoa.blogspot.com/2005/09/from-webservice-to-dbe-service.html>

The purpose of this learning block was to, from a WebService implemented in Apache Axis, automatically generate the necessary java stubs (WSDL2Java) required to access the Web Service externally and integrate them inside a DBE adapter.

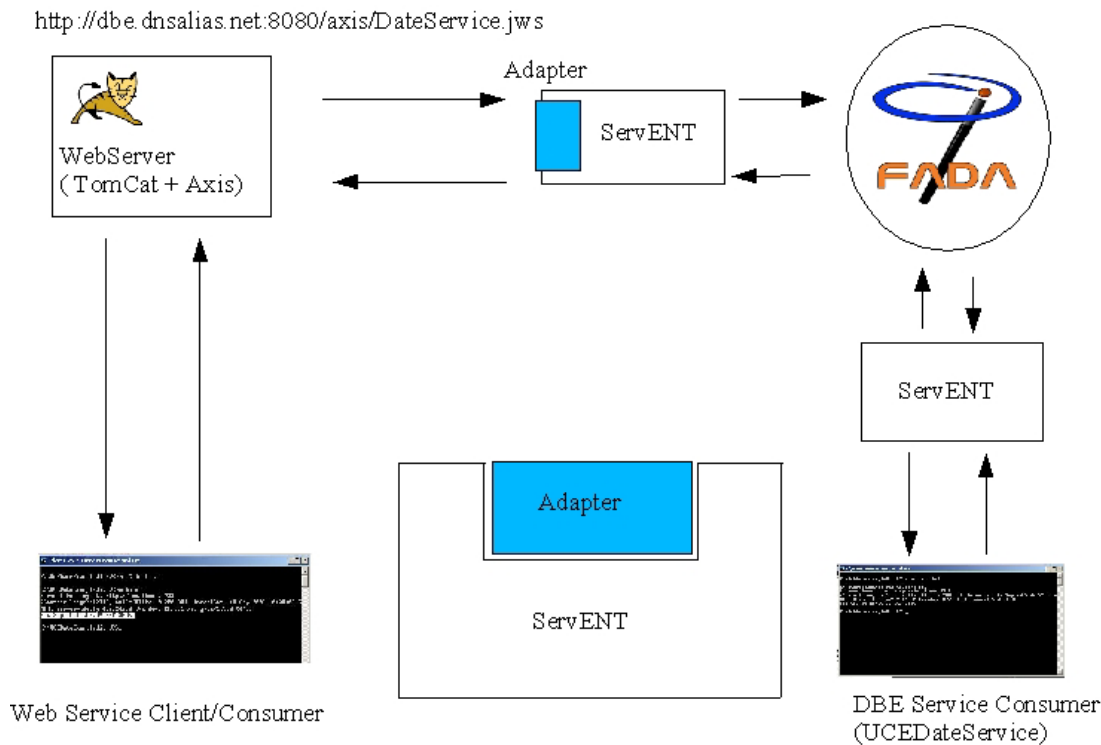


Figure 7 Tutorial Architecture

With the future support of WSDL directly on the servENT, taking the approach of porting services to the DBE as WebServices would allow SMEs to create a solution that could work as standalone webservices, making their solution more future proof and reusable.

3.2.2.6 BML Modelling Sessions

Learning Goal: BML concepts, modelling techniques

Delivery: One to one meetings

Individual modelling sessions were scheduled with SMEs in order to illustrate how BML could be applied to their business. Several BML models with SMEs were produced. Also, some models related to other concepts were also developed in order to show full usage of the BML where appropriate. Table 1 illustrates some of the BML models that were produced with and for SMEs.

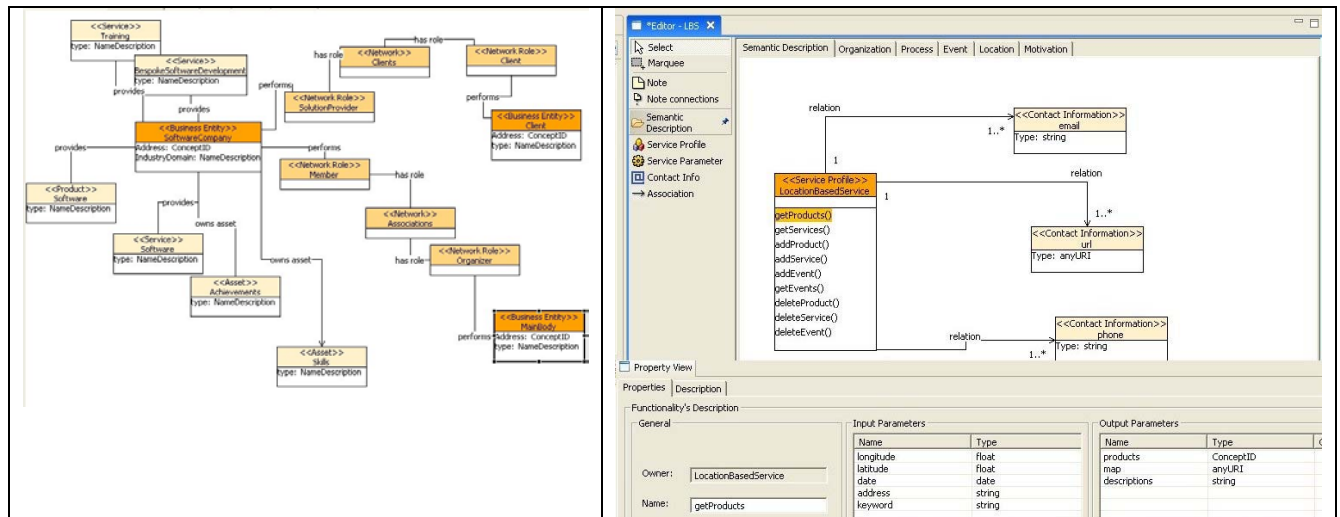


Table 1 BML Models

With any modelling technique comes the issue of understanding the logic behind the modelling language, and applying the modelling technique to the context in which the SME operates.

We understood that SMEs might have issues to get started with the concepts of BML and learning about the model/metamodel/meta-metamodel and Model Driven Architecture (MDA) principles.

Rather than focusing on the tools, we approached the modelling task as collaborative activity and worked with SMES in traditional ways such as by drawing on boards or on paper before committing to BML computer models. Figure 8 shows different sessions using a drawing board to elicit SME knowledge as a BML model and also using simple Post-it notes to draw BML classes and map the SME to BML.

Any SME literature (catalogues / brochures/website info) was also very useful to provide information that could be fed into the BML models. Post-its notes were used to capture as many items as possible from SMEs that could have a potential instance on the BML model.

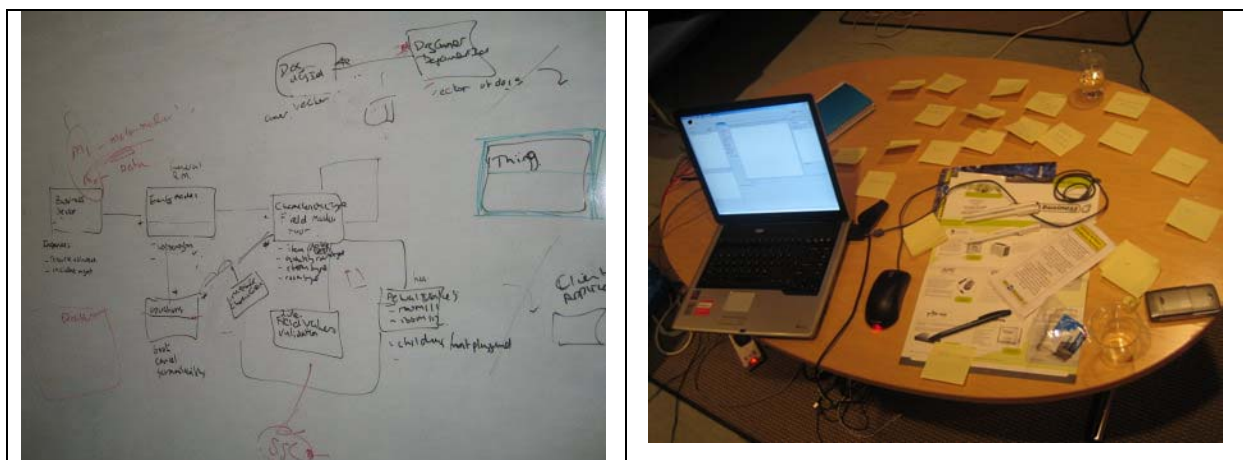


Figure 8 BML Prototyping

3.2.2.7 BML Presentation

Learning Goal: Learn about BML and illustrate some of its capabilities

Delivery: One to one, Weblog

Available: <http://opensoa.blogspot.com/2006/03/bml-presentation.html>

A presentation was prepared to connect the different contexts that shape BML (metamodeling/MDA/BML Editor/BML Data Editor) from a practical perspective. The presentation deal with aspects of the metamodels, how they are structured, how they fit within the DBE architecture and provided some examples of BML usage.

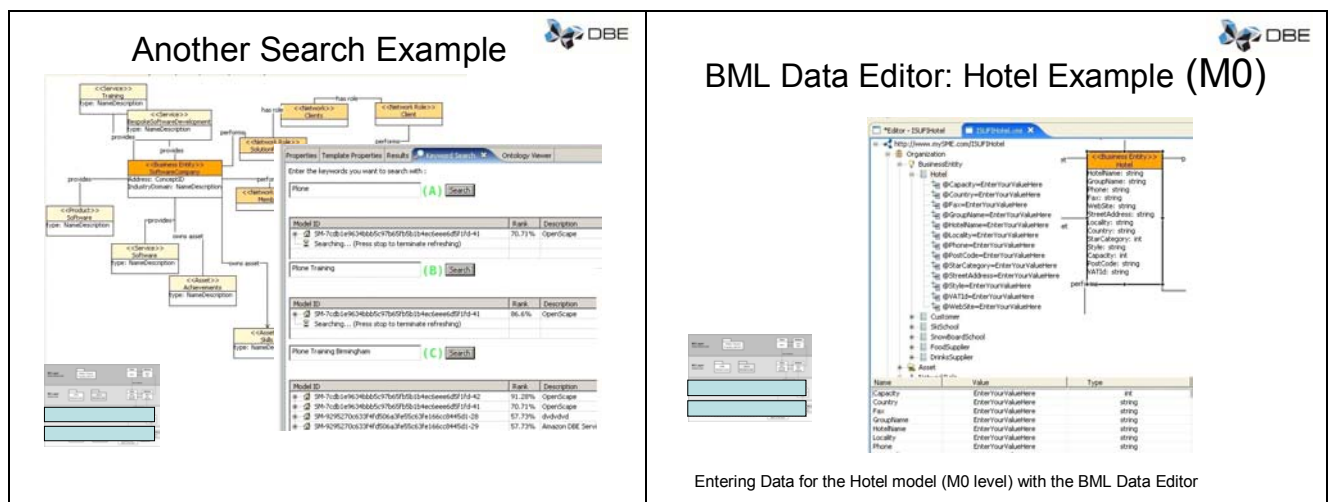


Figure 9 BML Presentation. BML M1 Model, BML M0 Model and search operation

3.2.2.8 OpenLaszlo UCEDateService

Learning Goal: Integration of a simple service (UCEDateService) as a OpenLaszlo application

Delivery: PDF Document. Weblog

Availability: <http://opensoa.blogspot.com/2006/04/dbe-exe-dateservice-with-openlaszlo.html>

The DBE has chosen to use by default the OpenLaszlo framework as a presentation layer/GUI for DBE services that require a user interface. For this tutorial, the original UCEDateService was re-developed into an application that made use of OpenLaszlo. .

A document/tutorial outlining the different interoperability issues that the developer needs to be aware of (such as: How can the DBE communicate with OpenLaszlo and how OpenLaszlo can communicate with the DBE, how to deploy the DBE service client in OpenLaszlo, etc) was produced. The intent of this document was not to explain in depth all the potential avenues of how to develop/integrate DBE and OpenLaszlo interfaces. The purpose was to showcase a simple example of DBE+OpenLaszlo. The figure below illustrates the user interface and details of the programming interface.

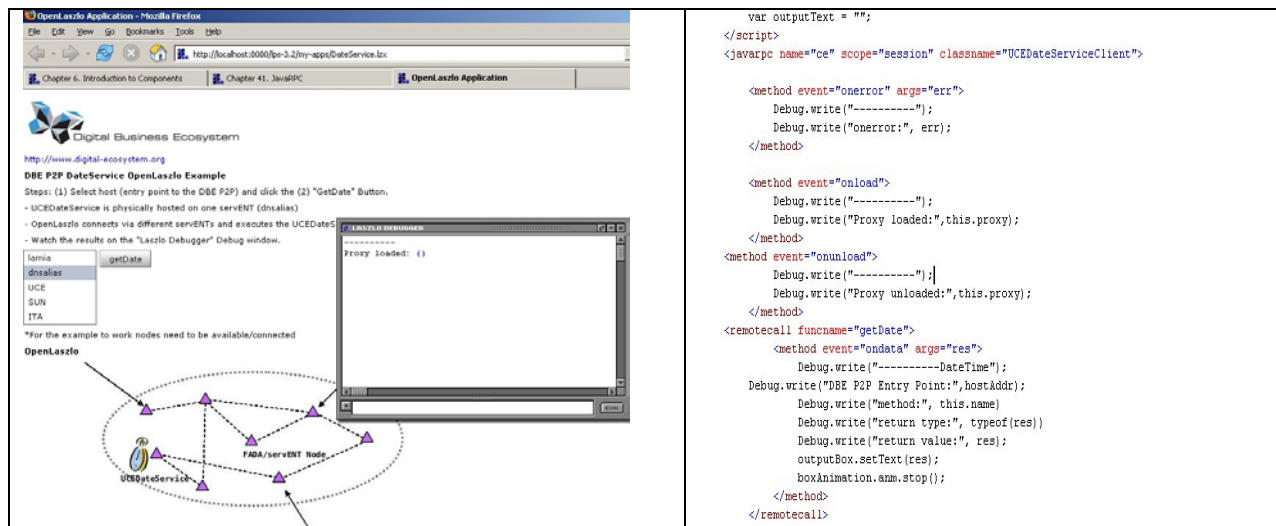


Figure 10 OpenLaszlo User Interface and detail of the source code integration (Laszlo) with the DBE.

The tutorial was based on an early one. In order to provide an extra perspective to the learning, the tutorial also integratee the notion of executing the service by entering different nodes that were part of the P2P overlay in order to illustrate the dynamic capabilities of the DBE. Figure 11 illustrates the UI details, where it is possible to “enter” the DBE (servENTs) via different hosts running an instance of the ExE.



Figure 11. Detail of the interface to enter the DBE from different nodes

3.2.2.9 OpenLaszlo DBE WebCamera/BML

Learning Goal: Reuse of previous FADA example, Integration with OpenLaszlo, BML Model Example

Delivery: One to one, Weblog (OpenLaszlo Part)

Available: <http://opensoa.blogspot.com/2006/04/dbe-exe-p2p-webcam-demo.html>

To illustrate another usage of OpenLaszlo UI capabilities, the original WebCamera demonstrator was ported to OpenLaszlo and deployed as an ExE service. Previously this service was developed as a FADA proxy only.

As part of the example and reusing some of the existing BML models, such as a Location Based Services (LBS) BML model, it was discussed with SMEs how BML could be used to define the location properties of a hypothetical “WebCamera” service that cater for visual feedback on a specific location (i.e. some public place, motorway junction, ski resort, etc).

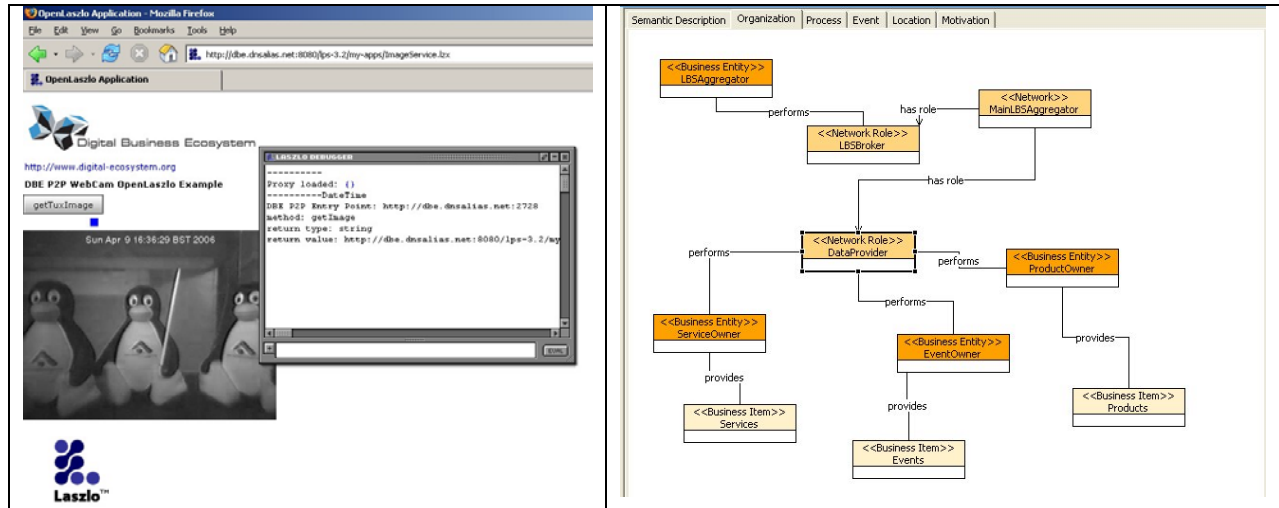


Figure 12 WebCamera and LBS Model

The figure above illustrates the user interface and a potential BML model for the camera model.

3.2.3 Future Delivery

Future delivery will concentrate on the RC learning to program or use the new components of the DBE as they are available and to transfer that knowledge to the SMES. Some of the areas that training will need to be delivered on are:

- DBEStudio. To prepare more materials and deliver training related to specific new functionality or the development process integrated on the DBEStudio
- Portal technology. The ExE integrates as a service a portal application that can be used to search, discover and execute services from a web browser.
- OpenLaszlo. The portal technology and the UI technology adapted by the DBE uses this UI technology. The ExE integrates also a UI toolkit and training on these aspects will be required. The training will focus on DBE integration.
- Concept demonstrators. While “Hello World” type of examples are useful, it is necessary to provide more meaningful and useful examples so that SMEs can get inspired by the DBE technology.

3.2.4 Critical Support

Support is needed in terms of the RC learning the different programming aspects of the platform in order to transmit that knowledge to the SMEs. Stability first and performance second of the existing tools will become more and more important as new functionality is integrated. Continuous support from the computing team is required.

3.3 Business Potentials and Practices (UCE)

On his book “The Future of Work”¹, Thomas Malone explains how new forms of organizations got established when new technology helped decrease the barriers of communication. New forms of communication also meant through out history new forms of business. For example, the concept of “SmartMobs” have appeared after mobile communication was efficient and affordable to anyone²:

“Mobile communication devices, peer to peer methods, and a computation-pervaded environment are making it possible for groups of people to organize collective actions on a scale never before possible -- smart mobs, for better and for worse.”

As one of the DBE SME drivers in Finland points out³, “All business is connections between people, but business software does not connect”. Tim O’reilly also mentions regarding the “Web 2.0” trend within the web community are based around the potential of increasing communication capabilities among business and users⁴:

- Internet is a platform for machine-to-machine interaction that enable new business opportunities
- Software is delivered as a service
- Aggregation of collective intelligence
- Network everything with anything

From a user’s perspective, some of the DBE business potentials are aligned towards the increase of communications capabilities among SMEs. The DBE is at the root of this problem by providing a platform that allows to create software services that can be as distributed as SMEs are, creating new channels for business to communicate more efficiently.

The main purpose of this block is to help to communicate such ideas in practical and relevant ways.

3.3.1 Description of the Learning Block

The learning block could be described as to create some concepts or demonstrators that can help to inspire SMEs in terms of developing their own (new) ideas for the DBE, while showing what the DBE is capable of. This learning block is intrinsically connected to the previous one.

3.3.2 Contents Produced

3.3.2.1 BML Treemaps

Learning Goal: To demonstrate DBE/BML as a collaborative system that could be visualised. BML models as a result of collaborative action.

Delivery: Presentation One to one.

¹ “The Future of Work: How the New Order of Business Will Shape Your Organization, Your Management Style and Your Life” . T. Malone. Harvard Business School Press. 2004

² “Smart Mobs: The Next Social Revolution”. H. Rheingold. Perseus Books Group. 2002.

³<http://www.bergie.iki.fi/blog/digital-business-ecosystem-in-fisl.html>

⁴ <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>

Availability: http://www.digital-ecosystem.org/Members/victorbayon/BMLTreeMaps.ppt/file_view

It was mentioned earlier that one of the key aspects of current and next generation network enabled applications will integrate forms of gathering information about the users and aggregate them in new and useful ways. Treemaps are useful to represent nested hierarchies as squashed flat nested boxes, well suited to represent the content of the DBE Knowledge Base and a large collection of BML models.

Within the DBE, the EvE plays an important role by implementing the ecosystem as a way to understand transactions among SMEs and provide service recommendations. Part of each SME profile that the EvE uses is the BML model. BML Treemaps provide a way to visualise BML models in aggregated views to help SMEs realise the effects of BML modelling and how the business semantics are used by SMEs.

The work described on this section is related and is based on the work described on WP 20 D21.8 “BML Data Editor/Wizard”.



Figure 1 BML Treemap (Partly shown)

To illustrate the cooperative nature of BML, treemaps were produced reflecting the content of the knowledge base as an evolving collective action.

3.3.2.2 *SugarCRM & Laszlo*

Learning Goal: To illustrate how to reuse Open Source software it and deliver it as a service

Delivery: Presentation. Demonstrator.

Available:

http://www.digital-ecosystem.org/Members/victorbayon/sugarCRM2OpenLaszloDBEService.ppt/file_view

There is a huge amount of open source software implementing different parts of business processes. The DBE could be an ideal platform to integrate different functionality from diverse open source projects and aggregate these “small pieces” into new applications and

offer such product as a software service. As an example, a demonstrator using sugarCRM calendar functionality was implemented as a DBE ExE Service integrating with OpenLaszlo.

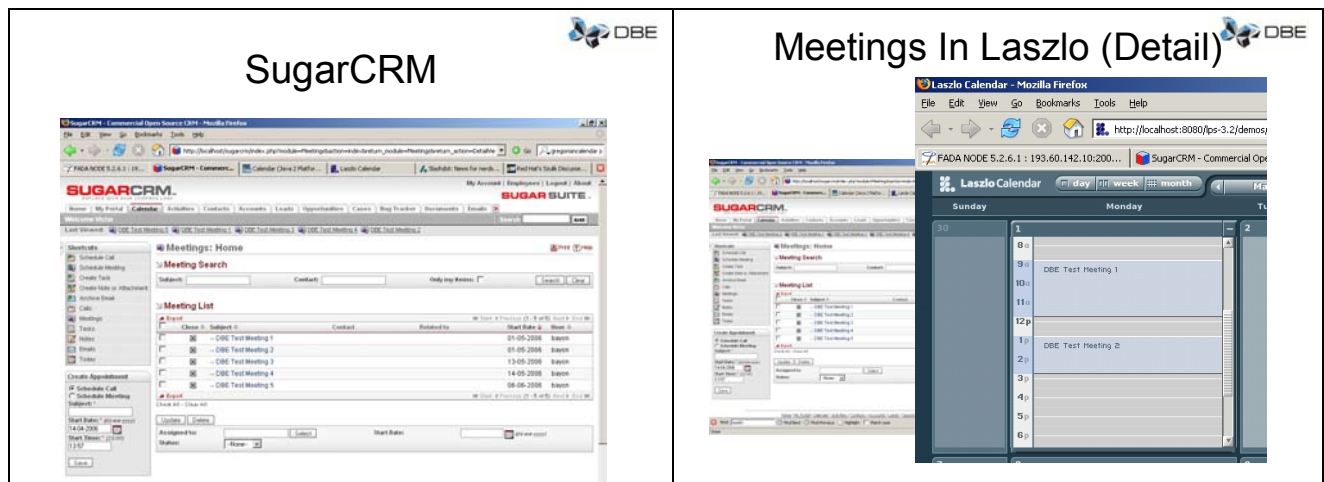


Figure 2 SugarCRM meetings displayed in a Calendar

Figure 2 illustrates the interface for calendaring/meetings management. The integration between SugarCRM and OpenLaszlo was managed by the DBE using the WebServices capabilities provided by SugarCRM. Adapters were developed to integrated the WebService as a DBEService and integration with OpenLaszlo was realised by calling the adapters from within OpenLaszlo.

3.3.2.3 *RubyOnRails As CRUD Generator for the DBE*

Learning Goal: Quick development of CRUD and DBE integration via WebServices

Delivery: Presentation. Demonstrator. One to One

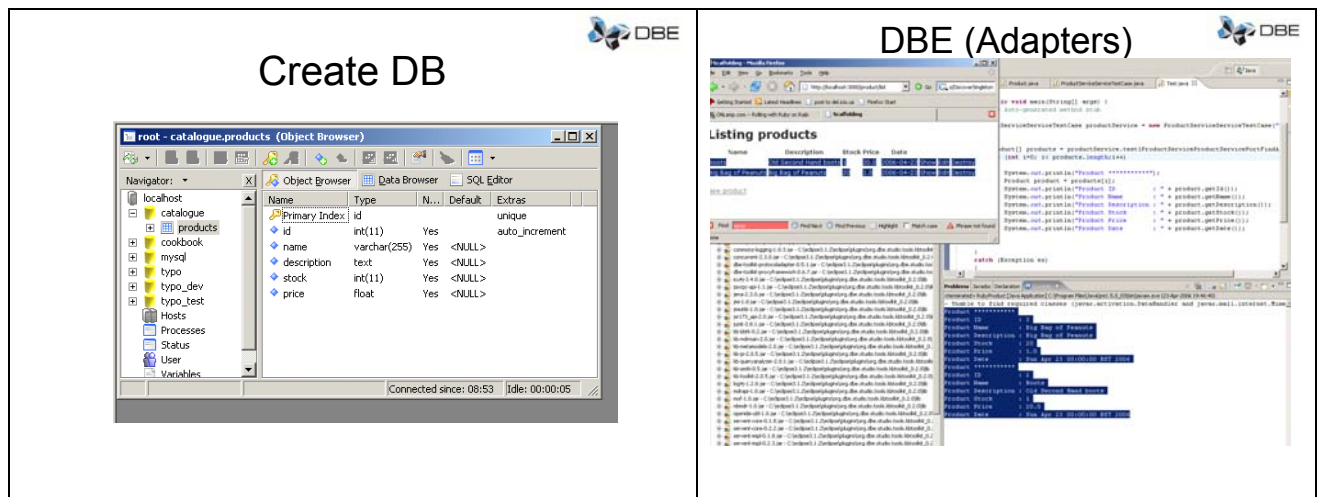
Availability:

http://www.digital-ecosystem.org/Members/victorbayon/RubyOnRailsAndDBE.ppt/file_view

The DBE will be mixed and remixed with other open source projects, it will not live isolated. Integrating the DBE with other platforms will allow SMEs to quickly use the strength of the different platforms integrated.

RubyOnRails (RoR) is a very popular open source project dedicated to the rapid development of websites. Among its capabilities is the rapid generation of, given database definitions, complete CRUD forms (Create, Read, Update, and Delete) in order to persist data on the database and make them available via web services.

From this perspective, RubyOnRails could be used to quickly prototype Websites and as an added value integrate some of their functionality via webservices into the DBE.



An example was created where from a simple database CRUD forms were generated and WSDL extracted, ready for integration with the DBE.

3.3.2.4 DBE In-a-Box






Learning Goal: Provide a scenario where the DBE becomes a low cost hardware solution. Please note that this presentation is related to a concept, not a real working prototype

Delivery: Presentation. Concept Demonstrator. One to one

Available: <http://www.digital-ecosystem.org/Members/victorbayon/DBE-In-A-BoxDevice.ppt/download>

While working with SME, one of the services that RCs provide to engaged SMEs is to provide ExE infrastructure for developing and testing of services. One of the SMEs suggested to us to build a “DBE-In-A-Box”, as an easy way for SME to have a local node and be able to be part of the DBE.

While not for strictly to host services but to consume them, a DBE-in-a-box device could store basic SME information related to the DBE such as the semantic profile and give simple “yellow page” functionality out of the box.

<div style="text-align: center;">  <h2 style="margin: 0;">DBE-In-A-Box on a 75€ Device (Concept/Scenario)</h2>   <p style="font-size: small;">This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 2.5 License. To view a copy of this license, visit http://creativecommons.org/licenses/by-nc-sa/2.5/ or send a letter to Creative Commons, 543 Howard Street, 5th Floor, San Francisco, California, 94105, USA.</p> </div>	<div style="text-align: center;">  <h2 style="margin: 0;">OpenWRT</h2> <ul style="list-style-type: none"> • http://openwrt.org • Linux distribution for Routers <ul style="list-style-type: none"> – White Russian RC5 • Highly Configurable • Compatible with Many Vendors/Models <ul style="list-style-type: none"> – (Linksys, 3Com, Belkin, Dell, Siemens, Microsoft) • ~50 € • Easy Installation • DBE Preconfigured from Supplier • Linksys WRT54GS <ul style="list-style-type: none"> – 16Mb Ram – Broadcom based chipset  </div>
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For this concept, we chose to use a very affordable 75€ device (Linksys WRT54GS). Out the box, such hardware could be refurbished with a copy of OpenWRT⁵ (Linux) and provide an SME, a device that could provide website space SME (SME), a semantic profile (yellow page service) that could be connected to a DBE Knowledge Base.

The device could be hosted at the SME premises as part of their internet connectivity. Such device could be an ideal for a micro-business that requires only a basic website, connectivity and a semantic profile of their business on the DBE.

Although limited, hardware is improving constantly and in future revisions it might be possible to run more services, including full or part of the ExE. As a working prototype, DBE applications could be “hosted” on the device by using it as a gateway to the real service.

3.3.2.5 Weblog

Learning Goal: Placeholder for information and current trends regarding DBE and related technologies.

Delivery: Web

Available: <http://opensoa.blogspot.com>

The main purpose of the weblog is to provide a central point regional SMEs to keep inform about the DBE, specially new releases. Also, the weblog plays a role of providing a way to communicate to SMEs about concepts that are related to the DBE such as Service Oriented Architectures, Semantic Web/Ontologies, etc, via links to other projects. The contents appearing on the Weblog are those that are generated internally within the project. In order to be open to other technologies and developments in the SOA area contents from public domains have also been linked up.

OpenSOA Web log has also been opened for contributions from SMEs and others interested in this area. As an example after the recently held Digital Ecosystems (DE) consultation meeting in Brussels, an open invitation has been made to new funded projects in the DE area to join the Weblog as contributors.

3.3.3 Future Delivery

This learning block is particularly exploring the business possibilities and potentials of the DBE architecture in an emerging way. Numerous new possibilities and ideas have been emerging as the capability of the architecture enhances and the level participation increases with more services being added. Each of these possibilities have been bringing in a new dimension to what can be done and what will be useful. Based on the current state of the architecture and the available features the following possibilities are being explored:

- New business possibilities and marketplace aggregations
- Virtual Enterprises and Collaborative Business Models
- Opportunities for elimination of ICT adoption barriers

⁵ <http://openwrt.org>

These possibilities are expected to be explored through action research in order to build case studies and content based on experiences. Such content will be used to support the development of business opportunities by different stakeholders.

3.3.4 Critical Support

This learning block will critically support the engagement process of the stakeholders in each region. In order to develop adequate content that are useful and transferable there is requirement for support and knowledge to emerge from the following areas through a collaborative approach within the partners in the DBE project. The key knowledge areas where key inputs are required are:

- Social Science aspects in the forms of networks, roles played by entities, etc.
- Emergent business models based on the technology and service capabilities
- Legal frameworks and their support to the existing and emergent business models
- Technology roadmap and the aspects of market orientation
- Sustainability of the DBE architecture, support and training networks

3.4 DBE Service Development (ITA)

3.4.1 Description of the Learning Block

This content block is first focused on the RCs so that they can acquire the knowledge about the platform and services, and therefore the RCs are able to transmit this knowledge to the Developer SMEs in the region. After that, this module is focused only on the Developer SMEs and this content block is started just after the Developer SME has decided to enroll in the project.

This content block is focused on the SW Developer SMEs, both Drivers and Implementers. The knowledge that must be provided to this profile must be aligned with what is expected to be produced by them, so that the limited resources available for SMEs are used in an optimum way.

Phase I Implementer SMEs have just started their work. The planning of the activities expected from them is the following: define their business using the DBEStudio tools, then generate the connector of the legacy system of the corresponding applications to the DBE, deploy the connector in the ServENT, install the new version of the applications and the connector in at least two users and provide feedback about the experiences.

Then, the content will train SMEs to reach those objectives and may be structured in two main blocks: DBEStudio and Execution Environment. The EvE components and how they can be integrated in the business cases has yet to be analysed. It is planned to do that with Phase II Implementer SMEs.

Additionally, one further classification of the contents produced in this content block may be done. The contents are of two different types, namely, Reports and SW, whereas in the other content blocks there are only Reports.

All the Service development contents may be found in four web sites; the next section explains what may be found in each of them:

- ITA DBE Web site (<http://www.ita.es/dbe/>).
- ExE SourceForge web site (<http://swallow.sourceforge.net/>).
- DBEStudio web site (<http://dbestudio.sourceforge.net/>).
- EvE web site (<http://sourceforge.net/projects/evenet/>).

3.4.2 Content Produced

3.4.2.1 ITA DBE Web site (<http://www.ita.es/dbe/>)

DBE ITA dedicated Web Page has several objectives.



For each objective, it is explained what has been done in the web page. Since the project is constantly evolving, the web page is constantly adapted to it, for example, now that the Phase I Implementer SMEs have started to work, a new section for them has been created.

- To be the first contact of the aragonese regional partners. It has been created the “DBE Project” section on the top left of the page. It is briefly explained a brief introduction which uses contents produced by Neil Rathbone and others produced by ITA, the Consortium, the Fact Sheet, the Actors in the region, the Architecture and the research topics. It is a good brief introduction to rapidly redirect the readers to more detailed information in the DBE Official web page. There is also the link the official web page to those who want to know more, the links to the 3 sourceforge components, and links

to all the DBE communities (all these links are on the right page). ITA web page is mainly a tool to be used by the agents in the region to be integrated in the DBE and is specialized in created services/examples for the main blocks of the project (DBEStudio, ServENT and EvE)so that the concepts are better understood, but it is also the door to the DBE world for regional SMEs.

- To provide the technical training contents requested by the SMEs. This contents are shared with the rest of regions since they are of high interest an this is why this section has been done in English and Spanish. SMEs has told us that the best way to learn to learn to exploit the advantages of the platform is to have examples for the higher number of features as possible. Then, it is been created the “ITA Training” section on the left part of the web site. It is been created up to now seven examples for the DBEStudio with a great feedback from the SMEs. For each example, there is an English manual, an Spanish manual, the source code and the Doxygen in order to navigate through the java classes. One of the examples is considered to be the first one and then it is explained more in detailed with a “step by step” section.

In this section, it is also found the “workshops”, where it is exposed for every big workshop done in ITA, an agenda and the materials used. There are very interesting materials even used by other companies as a material of how to get started (for example, the presentation called “Training Getting started” in the ExE ITA Training Day.

Finally, it is also found the “Dissemination” events with the objective order to expand the project in our region, for example the Digital Ecosystem Cluster project in which partners of the Envision and Seamless projects came to ITA (supported from SUN) to learn about the DBE from the Technical perspective and then decide whether they use the DBE platform in their corresponding project. The agenda and the materials used are also found there.

- To be the community tool. It is desired to be the place where all the SMEs expose their work, check their work plan and the progress done. It has been made a special section for every group of SMEs: Driver SMEs, Phase I Implementer SMEs and Phase II Implementer SMEs as it may be seen in the left part of the web site. For every company there is a brief description, contact, web site, and a link to it s public CVS where all the work done within the project by each SME is shown following the open source philosophy.

In the middle-up part of the web site, there are located the last news and events, so that SMEs can be updated about that information just with a glance.

- To be the regional community place. News and Events section continuously updated.
- To have information about the way to Join the project. Every possibility to join the project through a funding program is linked through this web site. For example, at the moment this deliverable is written, it is a link to the public call made by the Government of Aragon to fund the integration of applications to the DBE mainly in the tourism section.

3.4.2.2 ExE SourceForge web site (<http://swallow.sourceforge.net/>)

When the Execution Environment (ExE) was mature enough to be used by the community (lots of work have still to be done) the computing team decided to create a project hosted in

SourceForge.net, a very well know community portal were thousand of open source projects are hosted. After some discussion the community team decided to call this project swallow.

Project swallow

The Bridge of Death
BRIDGEKEEPER:
What... is the air-speed velocity of an unladen swallow?
ARTHUR:
What do you mean? An African or European swallow?
(1) Monty Python and the Holy Grail
(2) Airspeed velocity of an unladen swallow

Description
The DBE Execution Environment is an application container that spontaneously builds, by means of communication with other DBE ExE instances, a P2P network overlay. This Java container isolates the programmer from the P2P network coding complexity. Applications are coded as a POJO (Plain Old Java Object) objects without any knowledge of distributed programming. This container provides the means to perform event propagation, service lookup, retrieval and instantiation.

Swallow is a component of the DBE, the [Digital Business Ecosystem](#), and this is what you can find here:

News

- [Tutorials and help](#) documents has been released by the [Instituto Tecnológico de Aragón](#). (English and Spanish) (2005-10-11)
- [DBEStudio 0.1.0](#) has been released (2005-10-06)
- There is a PATCH available at SourceForge that fix some problems related with remote service execution. [more info](#). (2005-09-13)
- TUTORIAL: [WebService to DBEService](#) by Victor Bayon (2005-09-12)
- ProxyFramework and ProtocolAdapter has been included in the CVS (2005-09-09)
- KnowledgeBase and Accounting core services has been included in the CVS (2005-09-01)
- New servent version 0.1.5 and new [bundle](#) before integrating meeting, KB, SR and activeBPEL. (2005-08-04)
- New [Servent Node](#) added: [Technical University of Crete](#) (2005-07-22)
- New [Servent Node](#) added: [Instituto Tecnológico de Aragón](#) (2005-07-22)
- ExE diagram added (by Andy Edmonds) (2005-07-...

Diagram:

The diagram illustrates the architecture of the Project Swallow. It shows a hierarchy of components:

- Sourceforge Product** (Red box) contains the **Execution Environment** (Sourceforge name: Swallow).
- Integrator** (Green box) contains **SUN**.
- Implementer** (Blue box) contains **SUN**, **Intel**, **WIT**, **TUC**, **UniS**, and **TCD**.
- Component** (Grey box) contains **Servent**, **PTK**, **Account**, **QFT**, **TWM**, **APA**, **DSS**, **Portal**, **KB**, **SR**, **P2P**, and **Identity**.

Arrows indicate the flow of data and control between these components. A legend at the bottom defines the abbreviations: PTK = Proxy Toolkit, APA = Abstract Protocol Adapter, TWM = Transactional Workflow Manager, QFT = Query Formulator Tool.

The main goals of hosting the project in SourceForge.net were:

- Made it available to the community
- Make the first step in order to create an open community which could maintain to the project once it has officially finished.
- Make use of the SourceForge.net facilities.

The project is since then open to the community in the sense that anyone can download the source. At this moment users who are not working in the DBE project can download all the code but cannot submit changes, in part because some features have still to be done.

Users and partners can also submit bugs to the project page and ask for new features. All this information is accessible from the web page and the Computing Team have never tried to hide it. We recommend all the partners, and all the companies that have already tested the software not to write to the team when they find a bug, but write it directly using the SourceForge.net bugs reporter knowing this is the only way an Open Source project can evolve and become popular.

The basic features SourceForge.net offers to its projects and we are using are:

- A web page with Apache and PHP (<http://swallow.sourceforge.net>)
- A CVS
- Forum-like applications:
 - o Bug reporting
 - o Request features
 - o Ask for help
- Mailing list
- Download tracker

Surfing the web page we can find information about which components are part of the ExE and the partners who are developing those components. In the web we can found classes, javadoc and the user manuals that explain how to create services, deploy them and so on.

Using the SourceForce.net web page (<http://sourceforge.net/projects/swallow>), clients can download the software. There is always a full installer that includes all components, demo applications and start scripts for windows and linux-like system.

The installation package contains all necessary classes to run the ExE in any computer (Windows, linux, mac, Solaris). The only requirement is the previous installation of Java (v1.4 at least).

3.4.2.3 DBEStudio web site (<http://dbestudio.sourceforge.net/>).

The most affective deliverables to understand the architecture are D21.1 D21.2 D21.3 and they may be found in <http://www.digital-ecosystem.org/> as all the other delveirables.

In addition also D21.4 and D21.5 will be interesting documents to be read They are in the writing stage and will be published in October 06.

Another interesting document is Deliverable D26.3, “DBE Studio Integration”, which outlines all of Intel’s work in relation to the DBE Studio SF projectct.

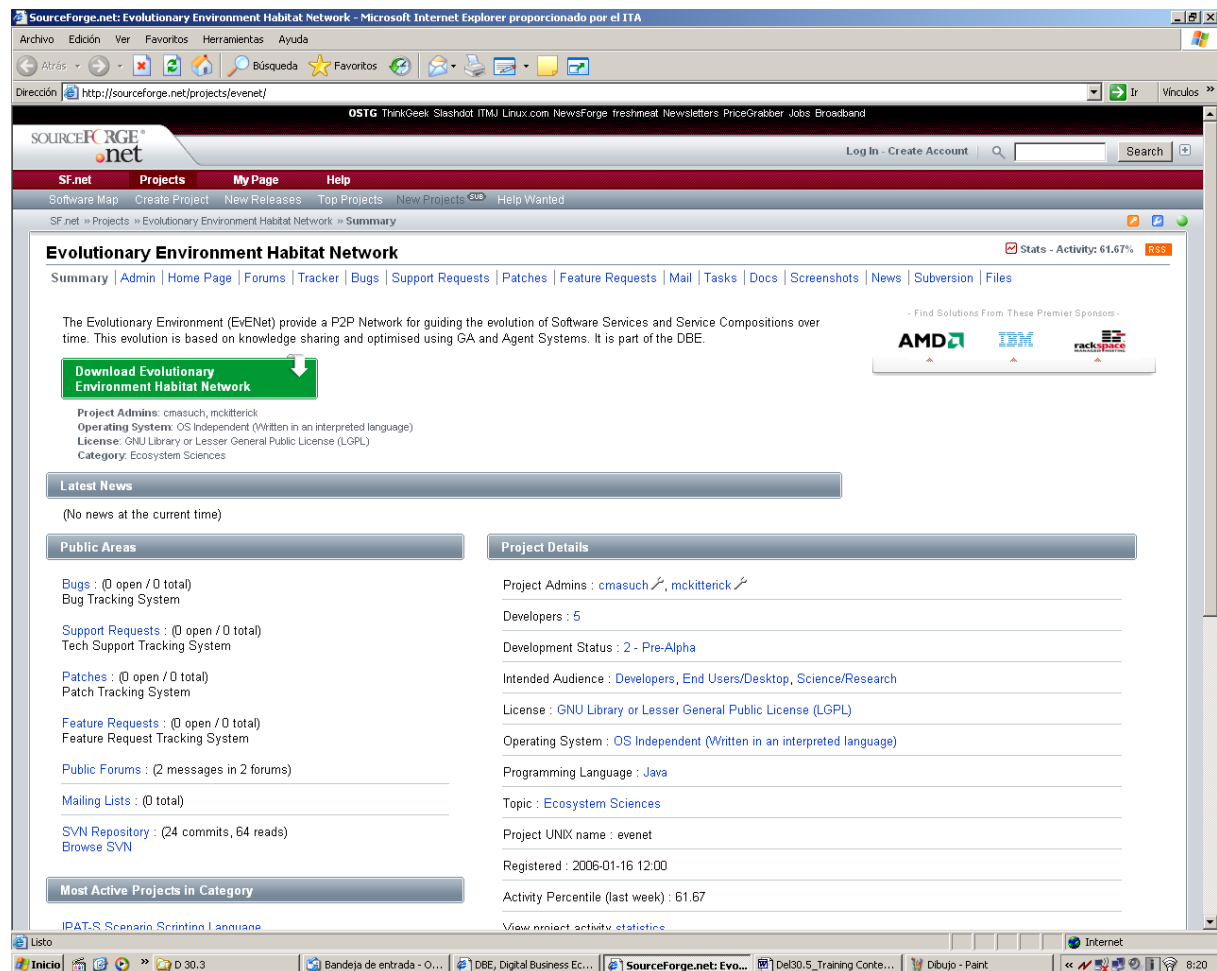
As part of the DBE Studio Integration task the DBE Studio SourceForge project was established and by using the project facilities provided by SourceForge, a project home page [<http://dbestudio.sourceforge.net>] was created. This informs visitors and active users of the project's installation procedures and development status. The web site also provides information on the support features of this project, such as mailing lists, forums and bug trackers. Given that numerous components are being developed by different people within the DBE Studio project, then to improve the responsiveness of bug, feature or support requests, users can target these requests directly to the responsible developer(s) of a particular plugin. There is also a link on the home page to our integrated build system web site, which was generated by Maven. This site provides information such as plugin project dependency lists, code convention correctness reports, test results, versioning and change logs. SourceForge provides a CVS repository for each project which is a necessary facility for integrated open source projects. All source code is available for browsing and downloading by anyone but CVS commit rights are restricted to allow only active project developers to modify and add files.



3.4.2.4 EvE web site (<http://sourceforge.net/projects/evenet/>).

Although the web page is more implementation-focused, it also provides a general picture on how the EvE is expected to contribute to the DBE. All the java code of the EvE, and also all the sources for the web-page itself can be found at the sourceforge's subversion repository. a link to that repository is provided on the page. The page is separated into 4 main parts:

- 1- EvE Network: gives an overview on the ideas behind the EvE, which architectural parts are envisioned, and how the EvE is integrated with the other parts of the DBE. Also, a list of the most relevant deliverables and additional papers is provided, to allow the interested user to get a more in-depth picture on the EvE.
- 2- Implementation: describes how the Service is implemented, how to change/add/remove the sub-components of the habitatService, how to change/add/remove parts of the documentation. It also provides the source codes generated javadoc.
- 3- Participate: provides links to the digital-ecosystem.org page, to the project's subversion repository, and to the supportive features of sourceforge itself (project forum, bug system, tracker, etc.)
- 4- Project documentation: shows the Maven-generated project information, development statistics, etc.



3.4.3 Future Delivery

The strategy to follow till the end of the project is clear and it is going to be the same as that followed up to now.

As new components of SW are produced by the Technical Team, it will be produced an explication about them, which may be found in some deliverable or in the sourceforge web sites, and then it will be created a service to show how to use it, and put in the DBE ITA web site.

At the moment this deliverable is written, ITA is doing a deep analisis of the DBEStudio and working with it. ITA is going to have a Code Camp with DBEStudio expert to finish this training. Then, ITA will create services to support the work to be done by Phase I Implementer SMEs. These services will be available in www.ita.es/dbe.

Regarding the new features with the ServENT, ITA will proceed in the same way, as new features appear, then ITA will learn about them and then ITA will create a service to show how to use it.

Regarding the EvE, it will be donde the same and it is planned that Phase II Implemeter SMEs Will use it.

3.4.4 Critical Support

In all the knowledge transfer, it is absolutely needed the support from the technical team which has developed the corresponding SW components. This support is done with emails, conference calls and even on-site camps.

3.5 DBE Regional Policy impact & potential (T-6)

3.5.1 Description of the Learning Block

The creation of the learning contents for the Regional Policy Impact has been late to build up given the timing of the strategy of engagement of public administrations. The actions and meeting with the regions involved have been utilised to understand as much as possible the kind of content needed for raising the awareness and comprehension of the impact of the DBE on the local policy.

Sustaining knowledge transfer at regional level for SMEs and policy makers is an important aspect of for raising the Regional policy impact and potential of DBE adoption. The goal of learning block in this case is let understand the DBE a useful instrument for regional territories and their respective SMEs to contend with global competition by:

- leveraging their specific strengths.
- supporting the creation of local economic business ecosystems.
- sustaining the growth of local social capital.
- implementing favourable policy condition for DE adoption.

3.5.2 Contents Produced

At this stage content produced relates to a specific CD with presentations and contents gathered to policy makers. In particular an analysis has been made on the micro and macro economic impact of the DBE. More content is under creation and distribution and it will be available before the summer.

3.5.3 Future Delivery

The Regional strategy engagement and their active participation is planned meeting will provide the needed insight to produce the correct learning content for the specific target users.

3.5.4 Critical Support

A continuous communication and contact with policy makers and local administrator through planned meetings and workshop.

3.6 DBE Community tools, processes & development (Intel)

3.6.1 Description of the Learning Block

In line with the emergent, as opposed to linear training strategy, the DBE community tools, processes and development have been continuously re-attuned to best meet the needs and characteristics of the DBE community as well as regional, economic and cultural diversity and more specifically evolving communities of practice.

Community tools to date include:

- Website (<http://www.digital-ecosystem.org>) with collaboration tools and content
- Knowledge Platform (<http://dbe.moodle.fi>)

These tools host training material as well as other communication and explanatory collateral. The community tools, as well as the content, are built using common creative license paradigm and open source software (i.e. the Content Management Systems (CMS) Plone and the Learning Content Management Systems (LCMS) Moodle) and development has been adapted and refined to enable communities to form, interact, publish and share information, and also to enable current and potential associated and affiliated regions to understand the DBE, identify its benefits, keep up-to-date with the progress of the project and ultimately engage with the DBE on both a semantic as well as a technical level.

One of the main objectives of the community tools thus far, has been to serve as vehicles for the dissemination of explicit and tacit knowledge and thereby facilitate the recruitment and training of SMEs that are integrating or will integrate services/applications into the DBE as well as form communities of practice around their interest and use of the DBE.

As the training plan for phase one was tactical in approach in order to support the build up of the initial small community of early adaptors, the knowledge generated for the larger community was initially less explicit and more tacit in nature. It is in phase two of the project that more explicit training material is being generated and transferred, and communities of practice are starting to form and to create knowledge.

Finally, the community website is also serving as a platform for the exchange of ideas on the establishment of a suitable governance framework and sustainability model for the DBE after the lifetime of the research project – an integral facet of current and future engagement of the SMEs and regions.

The process involved in the development of these community tools, is open, democratic and collaborative in nature between consortium partners, SMEs that are using the DBE and associated regions. The approach facilitates the build up of diverse regional, economic and cultural communities of practice and adapts to the way in which SMEs learn i.e. episodically, socially and in a concrete manner. It focused initially on building the vehicles for the dissemination of training content, as well as providing tangible training and communication assets. Over time, this should transition to facilitating the build up of further explicit and tacit knowledge.

3.6.2 Contents Produced

The DBE website (<http://www.digital-ecosystem.org>) has served as an integral tool in the dissemination of knowledge to SMEs and the proliferation of the DBE's communities of practice.



Figure 1

It is the first point of access to:

- Participate, learn, and experience the DBE

- Download software and resources
- Participate in communities of practice around the DBE
- Access audience specific content, sites and terminology.

In accordance with the philosophy of the project and the digital ecosystems, the website has been built using an open source CMS, Plone⁶ <http://www.plone.org> (see Figure 1), and is accompanied by the open source Knowledge Platform based on Moodle⁷ <http://dbe.moodle.fi>

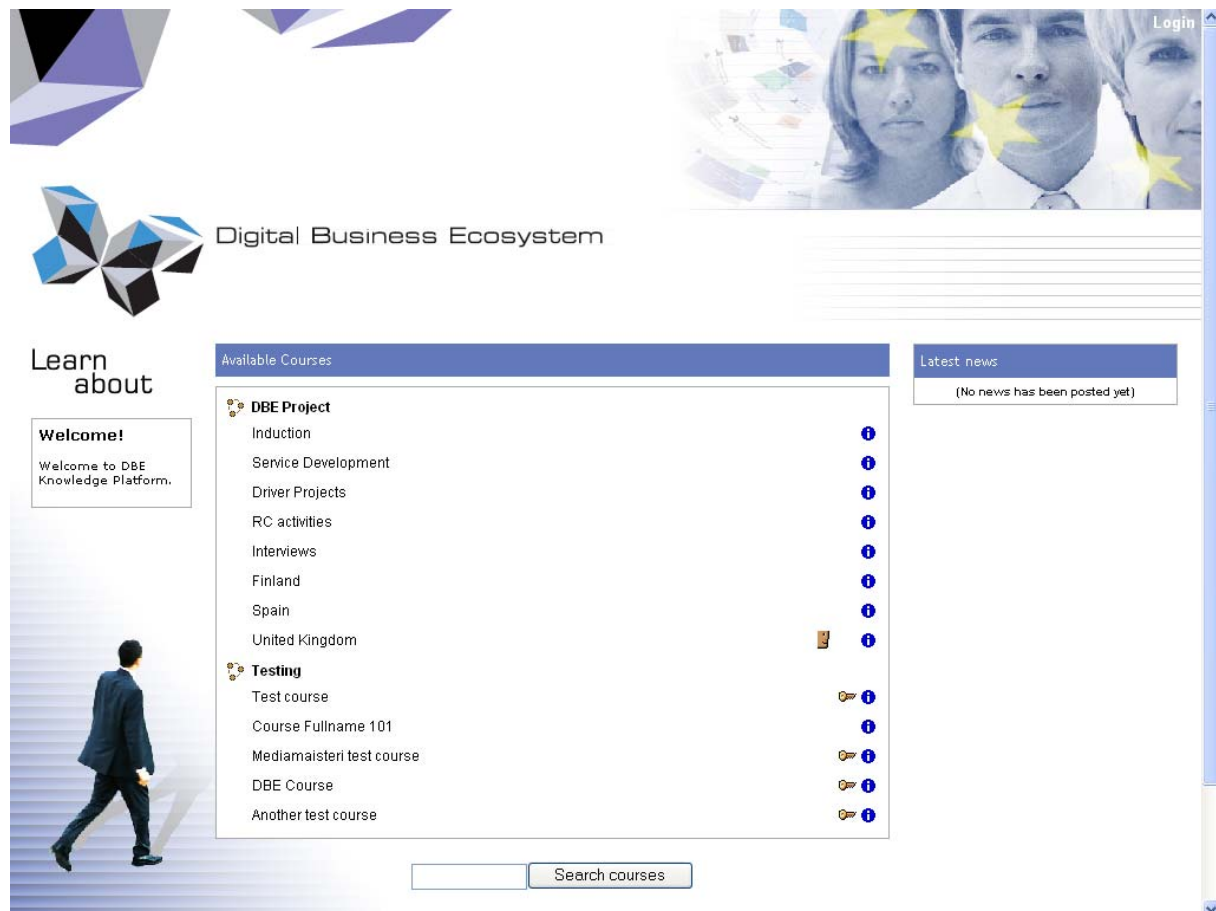


Figure 2

The following is an overview of some of the explicit and tacit knowledge produced:

Tacit Knowledge

⁶ Plone is an extensible content management system written in the Python programming language. It is based on Zope. Plone is free software and is designed to be extensible. It can be used as an intranet or extranet server, a document publishing system, and a groupware tool for collaboration between separately located entities. For the DBE project versions 2.7 of Zope, 2.1.2 of Plone and 2.3.3 of Python were used. <http://plone.org>.

⁷ Moodle is a course management system - a free, open source software package designed using sound pedagogical principles, to help educators create effective online learning communities. For the DBE Project, version 1.4.1 of Moodle was used. <http://moodle.org>.

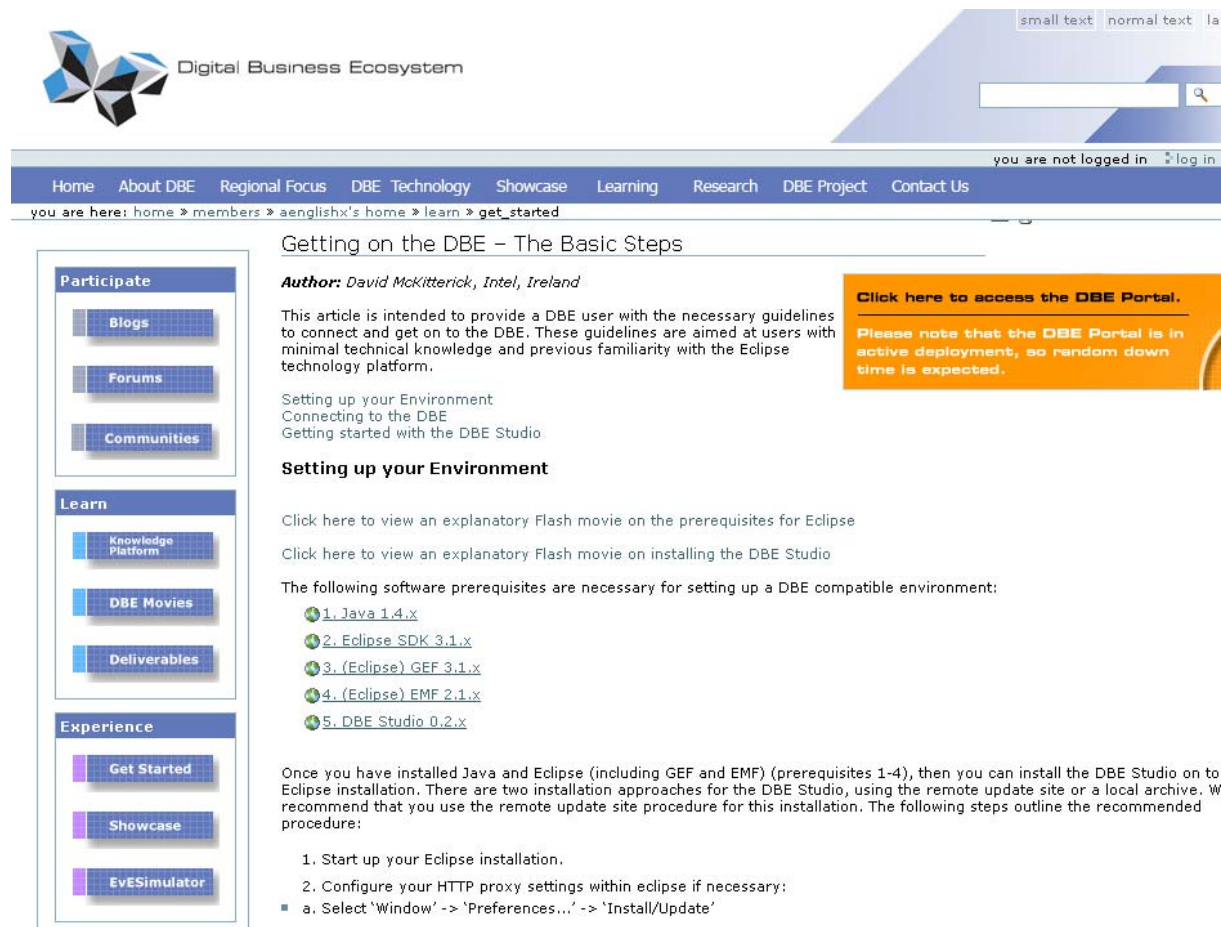
- Forums, discussion groups and blogs
- Creation and sharing of knowledge between the regions
- Usage trends and profiles from registration and authentication



Figure 3

Explicit knowledge

- How to get started on the DBE – a step by step guide with test nodes
http://www.digitalecosystem.org/DBE_Main/Members/aenglishx/learn/get_started



The screenshot shows the Digital Business Ecosystem (DBE) website. The header includes the DBE logo and navigation links: Home, About DBE, Regional Focus, DBE Technology, Showcase, Learning, Research, DBE Project, and Contact Us. A search bar is located in the top right corner. The main content area is titled 'Getting on the DBE - The Basic Steps' by David McKitterick, Intel, Ireland. The article provides guidelines for connecting to the DBE and getting started with the DBE Studio. A sidebar on the left contains links to Participate (Blogs, Forums, Communities), Learn (Knowledge Platform, DBE Movies, Deliverables), and Experience (Get Started, Showcase, EvESimulator). A warning box on the right states: 'Click here to access the DBE Portal. Please note that the DBE Portal is in active deployment, so random down time is expected.'

Participate

- Blogs
- Forums
- Communities

Learn

- Knowledge Platform
- DBE Movies
- Deliverables

Experience

- Get Started
- Showcase
- EvESimulator

Getting on the DBE - The Basic Steps

Author: David McKitterick, Intel, Ireland

This article is intended to provide a DBE user with the necessary guidelines to connect and get on to the DBE. These guidelines are aimed at users with minimal technical knowledge and previous familiarity with the Eclipse technology platform.

Setting up your Environment
Connecting to the DBE
Getting started with the DBE Studio

Setting up your Environment

Click here to view an explanatory Flash movie on the prerequisites for Eclipse
Click here to view an explanatory Flash movie on installing the DBE Studio

The following software prerequisites are necessary for setting up a DBE compatible environment:

1. Java 1.4.x
2. Eclipse SDK 3.1.x
3. (Eclipse) GEF 3.1.x
4. (Eclipse) EMF 2.1.x
5. DBE Studio 0.2.x

Once you have installed Java and Eclipse (including GEF and EMF) (prerequisites 1-4), then you can install the DBE Studio on to Eclipse installation. There are two installation approaches for the DBE Studio, using the remote update site or a local archive. We recommend that you use the remote update site procedure for this installation. The following steps outline the recommended procedure:

1. Start up your Eclipse installation.
2. Configure your HTTP proxy settings within eclipse if necessary:
 - a. Select 'Window' -> 'Preferences...' -> 'Install/Update'

Click here to access the DBE Portal.
Please note that the DBE Portal is in active deployment, so random down time is expected.

Figure 4

- Regional training material facilitating the creation and sharing of knowledge between the regions http://www.digital-ecosystem.org/DBE_Main/learningmaterial and http://www.digital-ecosystem.org/DBE_Main/Members/aenglishx/learn/get_started (see Figure 4)

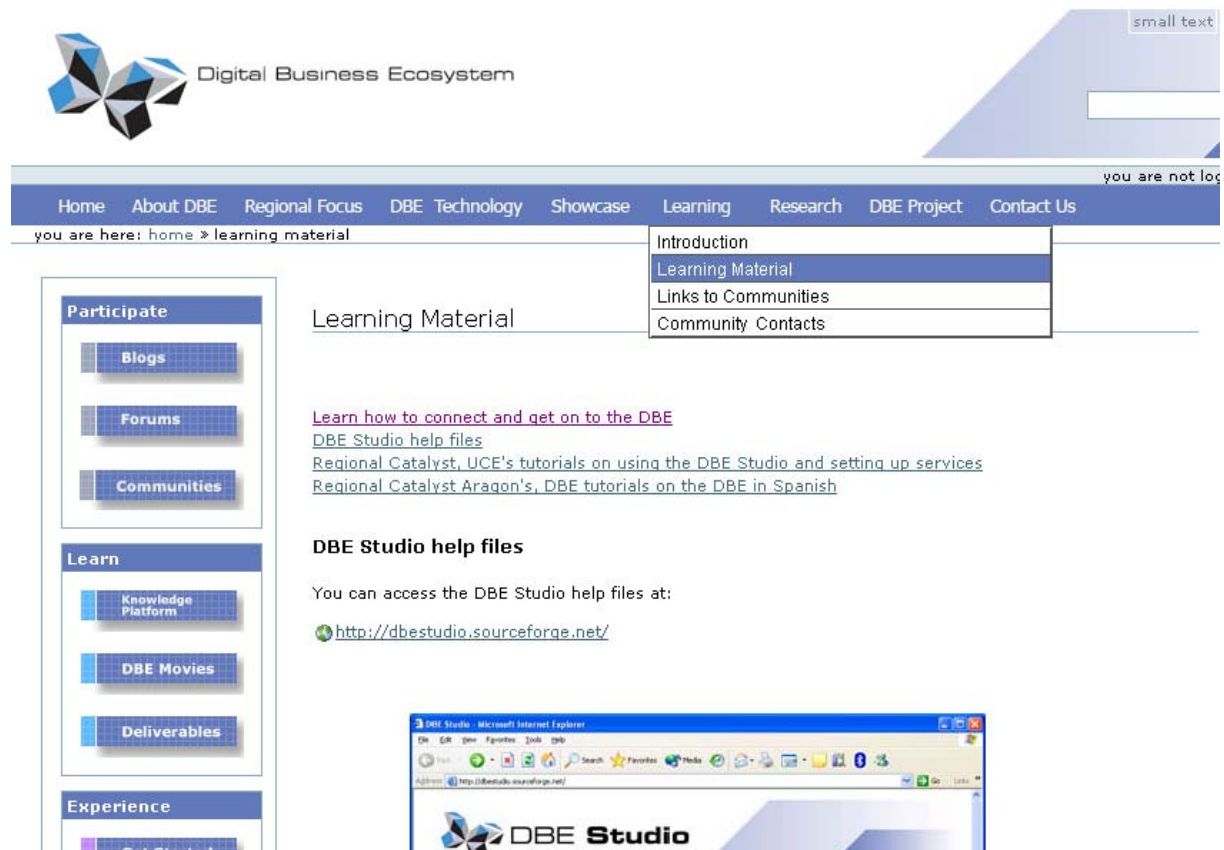


Figure 5

- Induction and training downloads, such as 4 learning and communication movies on the key concepts of the DBE:
 - The DBE and Macro Economics
 - The DBE and Micro Economics - The Benefits of the DBE for SMEs
 - The DBE's Technical Environment
 - The DBE's Evolutionary Environment

http://www.digital-ecosystem.org/DBE_Main/downloads
(Also available on CD)

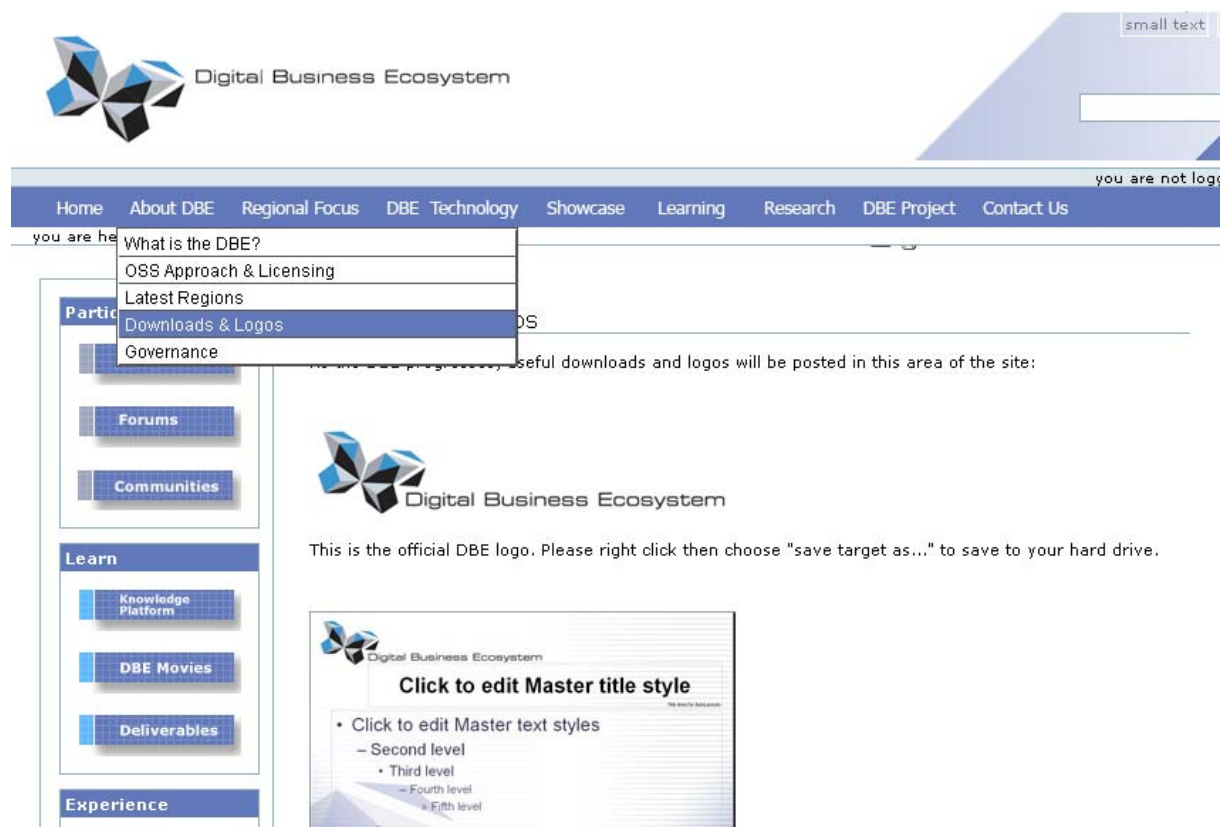


Figure 6

3.6.3 Future Delivery

The community tools produced thus far, will extend to facilitate the dissemination of training and adoption material for the DBE as well as support the proliferation of the Digital Ecosystems.

The exchange and cross fertilisation of knowledge will be facilitated by the implementation of RSS⁸ feeds on the central DBE website to syndicate to and from the communities of practice. The website will support the proliferation of the greater DBE community by extending to form an aggregated 'PlanetDBE'.

The formation of communities of practice will be enabled via targeted user oriented architecture and community registration.

Further explicit training content to support regional engagement will be created together with a step-by-step regional engagement toolkit based on diverse regional and economic needs and the results of scientific research.

⁸ RSS is Really Simple Syndication, a format for delivering regularly changing web content. Instead of having to go to the DBE website to see if new content or features have become available, users can click the RSS icons to subscribe to the DBE RSS feeds and retrieve summaries of the latest content published.

Further, tangible assets such as a graphical hardcopy overview of the DBE, papers, brochure material and posters etc will also be produced and distributed.

The Knowledge Platform will be utilised to disseminate explicit knowledge and course ware as it becomes available, and could become the platform for SMEs to create formal curricula or training offerings for other SMEs.

3.6.4 Critical Support

The contributions of, and close collaboration, with the technical, scientific and business teams is critical to the creation and appropriate dissemination of relevant, finely tuned and timely community tools and content. The adaptive and emergent strategy relies largely for its success on an ongoing understanding of the regional, cultural and economic diversity of SMEs and the characteristics of regional engagement, as well as a shared vision for the sustaining of the DBE and future development of digital ecosystems.

4 Conclusions

The creation of training contents requires close collaboration of the partners involved in the technical activities and the regions. The technical expert partners have to provide the corresponding documentation and pieces of Software and they have also to train the regional catalyst. Then, the Regions must transfer that knowledge to the local SMEs creating an easy-to-use e-learning platform.

This deliverable is a live document till the end of the project and the follow-on deliverable “D30.9 Training content report 3” will show of the contents produced at the end of the project.

The training activities will be also the source of a continuous contact among the different branches of the project and the SMEs, creating a community of high quality.

It has been identified that the code should be launched as soon as possible so that the community may contribute to it, or at least the community may detect bugs and suggest improvements. Regarding this issue, it is not a disappointment that the SME community find bugs in the platform, but the important point is that the DBE community provides a fast answer to those bugs creating a community of high quality. This concept is more near to the Open Source Software concept than to the private Software concept with Releases.