



## **LarKC**

*The Large Knowledge Collider*

*a platform for large scale integrated reasoning and Web-search*

**FP7 – 215535**

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### **D8.1**

## **Training Activities in LarKC**

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## EXECUTIVE SUMMARY

This document reports the training activities undertaken in LarKC from month 34 until month 42 (January 2011 to September 2011) of the project. It includes an overview of the internal and external training activities, educational activities, documentation, as well as the generation and maintenance of training materials. In particular, the deliverable presents the status of the LarKC exchange program. The initial aim of the program was to establish better communications and encourage knowledge transfer within the consortium by facilitating an exchange of PhD students and researchers between all LarKC partners. Following this, the mid- to long-term aim of the program is to enable PhD exchange to organizations outside of the LarKC consortium in order to disseminate the LarKC results to other organizations and provide training in the process of using the LarKC platform for research purposes.

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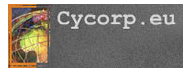









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<b>Abstract (for dissemination)</b>	This document reports the training activities undertaken in LarKC from month 34 until month 42 (January 2011 to September 2011) of the project. It includes an overview of the internal and external training activities, educational activities, documentation, as well as the generation and maintenance of training materials. In particular, the deliverable presents the status of the LarKC exchange program.
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# 1 INTRODUCTION

The main goal of task T8.1 in LarKC is the implementation of a program for internal and external training purposes. This program provides interested audiences within and beyond the boundaries of the LarKC consortium a series of training activities, ranging from general training (e.g., introduction to project-related areas, for the usage of the LarKC platform, or for the development of plug-ins) to specific training in the techniques and tools developed in the project. Internal training targets primarily the case study partners. They require additional expertise on particular topics in order to ensure an effective and efficient operation of the respective empirical studies. In contrast, external training targets parties which are not members of the LarKC consortium, but are interested in the topics related to the project setting. External training includes educational activities (e.g., co-organization of summer schools and establishment of the LarKC PhD exchange program), but also the user and developer documentation of the LarKC platform and associated plug-ins.

This document is an accumulated report of the LarKC training activities. The corresponding materials will be regularly updated based on the user feedback received. The results of this interaction are summarized in the different versions of D8.1, which were or are due in M6, M18, M33, and M42 of LarKC, respectively.

The current version of the document reports the training activities in LarKC from month 34 until month 42 (January 2011 to September 2011), including an overview of the internal and external training activities, educational activities and documentation, as well as the generation and maintenance of training materials. In particular, the deliverable presents the status of the LarKC PhD exchange program prospected to be implemented in this reporting period.

## 2 INTERNAL TRAINING ACTIVITIES

The internal training within the LarKC project is designed to deliver the background materials on topics such as reasoning, knowledge representation languages, semantic search, information retrieval, and programming models for distributed systems, to the LarKC members, so that trainees and researchers can gain the necessary knowledge for working with the LarKC platform.

Internal face-to-face trainings of case study partners on specific topics are relevant for the successful operation of the case studies. This includes the delivery of background material on topics such as reasoning and knowledge representation languages, focused training in the form of hands-on sessions and practical exercises to facilitate the usage of semantic technologies and tools (reasoning platforms, language-specific editors, validators, parsers etc.), as well as the structured delivery of the case study process descriptions (in terms of main phases, phase transitions, data to be collected and measured in each phase, measurements and measurement tools and suites, etc). The latter aims to ensure a sound operation of the case studies and to ease the task of result collection and feedback.

From month 34 to month 42 (January 2011 to September 2011) we have organized the following main events of internal training:

- Internal training activities at the LarKC General Assembly, Lyon, Feb. 2011.
- Internal training activities at the LarKC General Assembly, Lund, May 2011.

These training events will be reported with additional details in the following sections.

### 2.1 Internal Training Activities at the LarKC General Assembly, Lyon, Feb. 2011

In February 2011, a LarKC general assembly convened in Lyon, France. That general assembly consists of plenary discussions and Work package breakout meetings. Many of the activities were designed for the purposes of internal training.

On the first day of the meetings (1st Feb 2011), we had a plenary discussion on the exploitation. Ru He (SIEMENS) presented a 20 min talk on LarKC's exploitation plan. All other LarKC partners contributed to the discussion on possible opportunities for exploitation. On the second day of the meeting, several breakout sessions took place, which included a joint WP1+WP5 workshop, as well as WP2, WP3, and WP6 research meetings. During the afternoon, a joint WP2+WP4 workshop on interleaving reasoning and selection was held to prompt the cooperation between WP2 and WP4. A discussion on the LarKC white paper was held later on the same afternoon. Similar breakout sessions about WP7a, WP7b, and WP4 were held on the third day. The plenary meeting specifically covered the following topics:

- Parallelism and scale from the perspectives of LarKC's use cases.
- LarKC as an experimental platform: How are we using it, how will we be using it?

## 2.2 Internal Training Activities at the LarKC General Assembly, Lund, May 2011

In May 2011, a LarKC general assembly convened in Lund, Sweden. Analogous to the other general assemblies, many activities in this assembly served internal training purposes.

At the first day of the assembly (10th May, 2011), a plenary meeting on exploitation plans was held. In particular—and with respect to LarKC deliverables D9.5/9.6.—the LarKC consortium partner SIEMENS presented some general ideas. The authors who contributed to the sections entitled “technological assets” and “use cases” presented what they had written in their respective sections and how this could fit into the larger picture of LarKC’s exploitation plans.

The use cases are:

- Urban computing;
- Early clinical development of cancer research,

The work package breakouts were held at the second day of the assembly. At the third day (12th May, 2011) of the assembly, Spyros (Amsterdam) gave a one hour tutorial on the LarKC platform 2.5, the new release of the LarKC platform. After that, Mr. Jan Trofast from AstraZeneca R&D Lund gave a tutorial on the importance of background knowledge for conducting successful drug research.

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## 3 EXTERNAL TRAINING ACTIVITIES

External training on LarKC is designed for interested parties outside the LarKC consortium regarding the technologies employed or developed throughout the project.

### 3.1 General Ideas

- **Academic seminars / courses.** Academic partners in the LarKC consortium include training activities on the project key features within their own institution programmes. They are of different nature, depending on the type of audience that is intended to reach:

- Regular undergraduate lectures,
- PhD lectures and activities,
- Postgraduate courses, in the scope of Masters and speciality degrees.

In these areas, the academic groups working on the LarKC project are responsible for lecturing on several topics, so that LarKC-related concepts are being introduced in a gradual way.

- **LarKC public workshops.** It is designed to organize dedicated LarKC public workshops along the project lifecycle. The workshops mainly consist in topical presentations focused on the most relevant key features and innovations worked out at the moment to be held. The attendees to these workshops are:

- Student audience: Students from the hosting organization or from universities/centres external to the LarKC consortium.
- Research audience: researchers from the LarKC partners and from organizations external to the LarKC consortium.
- Business audience: business units of LarKC partners or external industry organizations interested into the exploitation of LarKC results.
- Early access group: As this is a special target group for the results of the LarKC project, a dedicated section describes the training plan for this group in more detail (see Section 3.5 on page 3.5).

- **Cooperation with the EastWeb project.** The goal of the EastWeb project (see <http://www.eastweb.eu/>) is to build an integrated leading Euro-Asian high education and research community in the field of the Semantic Web, the next generation of the Web. LarKC was planning to cooperate with the EastWeb project. Particular attention was paid to training events in Asian countries, realized with the help of our Chinese and Korean partners. Their participation in the project opens new opportunities for the European reasoning and search community to outreach their technology towards two of the most rapidly evolving IT sectors worldwide. Elena Simperl (STI Innsbruck) was one of the organizers of the Asian Semantic Web School (ASWS), which was organized together with EastWeb for the second time in December, 2008, in Thailand.

- **European summer schools on the Semantic Web.** Further external training is provided in the context of existing European summer schools such as the Semantic Web Summer School (SSSW) and the Reasoning Web Summer School. We have contributed to the organization of at least one summer school during the project runtime — in terms of providing tutors and teaching materials — in order to educate the young research community on the novel ideas and technologies emerging in the LarKC project and to establish the continuity of the research initiated throughout the project beyond its boundaries. An important part of the external training also is to train potential beneficiaries of the LarKC platform on how to use it and to register and plug-in additional custom modules. In order to improve the quality of the materials documenting the usage and the further development of the platform, the project web site will contain a dedicated discussion forum for users to provide feedback on the quality of the documents delivered (see [https://gforge.hlr.de/forum/forum.php?forum\\\_id=522](https://gforge.hlr.de/forum/forum.php?forum\_id=522)).
- **Participation of LarKC in external workshops.** LarKC offers training activities (such as topical presentations on certain results of the project) in workshops organized by other projects and organizations.
- **Exchange program.** Efforts regarding exchanges of LarKC students and researchers are reported in the following section (Section 3.2).

## 3.2 Exchange Program

This section introduces the LarKC exchange program that was set up within the first twelve months of the LarKC project. The major goals of this program are as follows:

- The initial goal of the exchange program is to establish better communication between the partners of the LarKC project by facilitating an exchange of PhD students and young researchers, between all partners in the LarKC consortium, to encourage a transfer of knowledge within the consortium. By establishing better communication within the consortium a better shared understanding of the research problems faced within the LarKC project will be reached and ultimately a better quality of research can be conducted resulting in better results from the LarKC project.
- Following this, the second goal of the exchange program is to enable PhD exchange to organizations outside the LarKC consortium in order to disseminate the LarKC results to other organizations and provide training in the process of using the LarKC platform for research. Exchanging PhD students outside the consortium is crucial to ensure the acceptance of the LarKC platform as a platform for large scale reasoning research and will ensure the endurance of the LarKC platform as an infrastructure beyond the duration of the LarKC project. STI International will play a major role in this endeavor by establishing connections with organizations outside the LarKC consortium that are relevant for the topics of LarKC.
- Finally, the long-term goal of the exchange program is to establish lasting communication channels between the different organization, both within the LarKC

consortium and external organizations, beyond the length and scope of the LarKC project. These lasting communication channels will enable better collaboration within the community and will be evident from the number of publications that will be created from cross organization authors. The exchange program will also support the Early Access Group, described in more detail in Section 3.5.1, by raising awareness of the LarKC platform and disseminating results in a timely fashion to early adopters.

The guidelines are put in place for the purpose of establishing an exchange for a given **Student** with a given **Host Organization**, and ensuring its successful execution and completion. Deviation from these guidelines is possible only with agreement from the ork package WP8 leader and the LarKC Technical Project Management Board. See the Appendix for the detail of the guidelines.

The following table provides an overview of the current academic partners that will participate in the LarKC exchange program. In each case the estimated number of exchanges to be made during the LarKC project is provided:

- **VUA**

- Martijn Brakenhoff, VUA masters student at MPG, April to September 2009. His exchange report can be found from the following link: <http://wiki.larkc.eu/MartijnBrakenhoff>.
- Gaston Tagni, VUA PhD student at MPG, several visits in 2011.
- Arjon Buikstra, VUA masters student at MPG, May to August 2010.
- Zhisheng Huang, WICI, October to November 2010. His exchange report can be found from the following link: <http://wiki.larkc.eu/LarkcProject/WP8/ExchangePlan?action=AttachFile&do=view&target=Exchange+Plan+Report+%28VUA%29-Zhisheng.doc>.

- **USFD**

- Hamish Cunningham, IARC, 2009.
- Kalina Bontcheva, IARC, 2009.
- Angus Roberts, Ontotext, Summer 2009.
- Valentin Tablan, Ontotext, Summer 2009.

- **WICI**

- Yi Zeng, VUA, May 23rd to June 30th 2009. His exchange plan report can be found from the following link: <http://wiki.larkc.eu/LarkcProject/WP8/ExchangePlan?action=AttachFile&do=view&target=Exchange+Plan+Report+%28WICI%29-YiZeng.pdf>
- Yan Wang, VUA, May to June 2010. Her exchange plan report can be found from the following link: <http://wiki.larkc.eu/LarkcProject/WP8/ExchangePlan?action=AttachFile&do=view&target=Exchange+Program+Report+%28WICI%29+-+YanWang.doc>

- **HLRS**

- Axel Tenschert, VUA, May 4–15, 2009. His exchange plan report can be found from the following web link: <http://wiki.larkc.eu/LarkcProject/WP8/ExchangePlan?action=AttachFile%26do=view%26target=ExchangeReportAxelTenschert%28HLRS%29May09.doc>
- Alexey Cheptsov, Sheffield University, 2010, in the time-frame of the GATE summer school. (This exchange was eventually postponed, due to unforeseen issues.)

### 3.3 LarKC PhD Symposium

The LarKC PhD exchange program also runs an annual PhD Symposium, where PhD students can present their current research on their topic and receive feedback from the foremost experts in the field. Prior to the symposium, students will submit a report outlining the current state of their research and their future plans. These PhD reports will be reviewed by chosen experts from within the LarKC consortium or externally. A number of PhD students will be chosen to present their work at the symposium, those who are not chosen will receive written feedback in terms of the reviews to their PhD report. The PhD symposium will run and each PhD student will present his or her current work in the form of a short presentation. The experts who performed the reviews will be present to give further feedback on the PhD Students current directions towards their PhD. The PhD symposium offers a great opportunity to students to get feedback on their thesis and to see the research of other students in order to get a clear understanding of the obstacles that they face and potential solutions to these obstacles.

One of the intended side effects of the exchange program and PhD symposium is to establish joint PhD supervision in a cross organizational manner. When a given **Student** is exchanged from the **Student Organization** to the **Hosting Organization** a research topic may be established that has parts to both organizations. In such a case the given **Student's** PhD thesis may be supervised by representatives of both organizations. In this way, the PhD student will benefit from the knowledge of the representatives of both organizations, which will result in a PhD degree of a higher quality. Also, via the PhD student, the level of cooperation and communication between the two organizations jointly supervising the student will be improved.

The LarKC PhD symposium is a yearly event where researchers engaged in pursuing PhDs can gain feedback from more experienced researchers within the community. It also gives PhD students at less advanced stages an opportunity to see the state of other PhD students who are more advanced, thus enabling them to avoid common pitfalls and mistakes when writing a PhD.

### 3.4 Training via the LarKC Wiki and Blog

The training activities in the LarKC Wiki (<http://wiki.larkc.eu>) and Blog (<http://blog.larkc.eu>) can be considered to be targeted at both internal and external training activities, because the information appear on the public pages of the LarKC Wiki and the LarKC blog are accessible for both internal members and researchers from the outside of the LarKC consortium. The LarKC Wiki and the LarKC Blog

have served as one of main channels for the communications between the researchers inside the LarKC project and the researchers outside of LarKC. The research resources which are collected in the LarKC Wiki and the discussions in the LarKC blog provide rich repositories of relevant research information. That is achieved mainly via the following approaches: A Semantic Web Technology Hierarchy at the LarKC Wiki, training materials on the LarKC Wiki, LarKC Blog entries devoted to training, and online video training.

- Semantic Web Technology Topics at the LarKC Wiki: The pages of the Semantic Web Technology Topics (see <http://wiki.larkc.eu/TechnologyTopics>) at the LarKC Wiki are designed to be a place for the LarKC community to collect different technologies and topics that are relevant to LarKC. So far, the following topics have been created:
  - Adaptive Memory
  - Approximate Reasoning
  - Distribution and Parallelisation
  - Information Extraction
  - Thinking At Home
  - Triple Stores
  - Why We Need LarKC
  - Closed World Assumption and Negation as Failure
  - Librarianship: the Forgotten Silver Bullet
  - Granular Computing and Variable Precision Logic
  - Meta Reasoning
  - Contextual Reasoning
  - Module Reasoning
  - Rule-Based Reasoning
  - Resource-Bounded Reasoning

Additional topics of relevance are expected to be added. Moreover, part of the content in the LarKC survey deliverables such as D1.1.1 (Overview of relevant work in other areas) and D4.1 (A Survey of Web Scale Reasoning) is converted and added into the corresponding Wiki pages after those deliverables are completed.

- Training material in the LarKC Wiki. The LarKC Internal Training Wiki pages (see <http://wiki.larkc.eu/InternalTraining>) are designed to be internal, i.e., accessible only by LarKC members only. They collect resources for mutual education of the LarKC partners. The External Training wiki page (at <http://wiki.larkc.eu/ExternalTraining>) will eventually contain material for educating external parties on how to use the LarKC platform.
- LarKC Blog for Training. In addition to its publicity function, the LarKC blog also serves as a forum for LarKC researchers.

- Online video training. The training page provides some links to the external online videos, which include Video Lectures on the Semantic Web (see [http://videlectures.net/Top/Computer\\_Science/Semantic\\_Web](http://videlectures.net/Top/Computer_Science/Semantic_Web)) and video lectures on search engines (see [http://videlectures.net/Top/Computer\\_Science/Search\\_Engines](http://videlectures.net/Top/Computer_Science/Search_Engines)).

## 3.5 Training for Early Access Group

### 3.5.1 General Ideas

LarKC has created a **Researcher Early Access Group** that is open for participation to scientists working in related fields. Members of this group gets early access to project infrastructure and is invited to experiment with plug-ins on the collider. The following activities have been designed:

- Programming by example: Providing a set of pre-programmed open-source plugins that the Group members can adapt.
- An instructional video explaining the overall LarKC plugin architecture, and the general design motivations behind it. This is easier to get across in a spoken than in a written medium.
- Joint programming sessions: These are 1–2-day events where LarKC designers can instruct the members of the Group and do “physical handholding”. Because of the high overhead of these events (time, travel costs), we expect to conduct at most 1 or 2 of such sessions.
- Home-visits: In order to get more people involved at each of the organizations participating in the Early Access Group, LarKC designers might visit those organizations on-site. This is more cost- and time-efficient for the Group members than the joint programming sessions.
- Textual material: We make extensive use of the LarKC Wiki for publishing online documentation, both on the plugin interfaces and on example plugins already written. We use the wiki facilities for collecting feedback and improvements on this documentation from the group members.

### 3.5.2 LarKC Pharma workshop

**General Ideas** LarKC has gained a lot of attention within the Health Care and Life Sciences (HCLS) communities. The fact that OpenPhacts decided to use LarKC as platform for its first development cycle and interest within W3C HCLS interest group stimulated us to set up a targeted workshop for audience from Pharmaceutical Companies and related businesses.

**Set Up** The first LarKC Pharma workshop was held in Stuttgart on April 19 and 20, 2011. An interesting mix of 20 participants from pharmaceutical companies, semantic web companies and research/academia formed an open atmosphere with many intense discussions and networking. The workshop had an outline similar to previous LarKC tutorials with a twist from the pharma domain in presentations and examples.

Table 3.1: Program of LarKC Phact Workshop (Tuesday, April 19th, 2011).

Session	Presenter
Welcome and introductions	Bastian Koller HLRS, Matthias Assel HLRS, Bosse Andersson AstraZeneca
LarKC Platform: Architecture, Features, etc.	Matthias Assel, HLRS
Hands-on 1: Starting/Setting up the platform and running a simple, pre-defined workflow	Matthias Assel, HLRS, Alexey Cheptsov, HLRS
Hands-on 2: Developing a simple plug-in, creating a new workflow and running it	Alexey Cheptsov, HLRS , Matthias Assel, HLRS
Linked Life Data: Knowledge Extraction and Semantic data integration in the pharmaceutical domain	Vassil Momtchev, Ontotext
LarKC at AstraZeneca	Bosse Andersson, AstraZeneca
Discussion and Sum up	Matthias Assel, HLRS, Bosse Andersson, AstraZeneca
Social dinner	

**Objectives** The objective was to engage participants from pharmaceutical companies and related businesses. One aim of this workshop was to enable participants to get access to early research results and technologies from the LarKC project. Having completed this workshop participant will have the basic skills required to develop their own plug-ins for the LarKC platform and run their own experiments on the LarKC platform. The tutorial was conducted as a one and a half day event, with presentations from experts on the LarKC platform and a series of hands-on exercises designed to introduce the participants to the different aspects of the LarKC platform. Time was reserved so that the participants from the health care and life science communities could establish networks, e.g., a Linked In group created for communication.

**Program** Tables 3.1 and 3.2 provide an overview over the workshop program on both days.

**Outcome** Participants found the LarKC platform and the Linked Life Data repository useful and noted the following points:

- From the pharma perspective questions circulated around what the requirements will be to host/use LarKC as an internal experimental platform.
- The semantic web companies were more interested in how to use components of LarKC or provide services that can leverage from the LarKC platform.
- The research/academia community had a specific need to learn how to quickly get LarKC up and running for the first iteration in the Innovative Medicine Initiative, OpenPhacts.

The many questions and the lively discussions have been compiled down to important feedback for the LarKC consortium. Important points identified during the workshop that has been addressed by LarKC:

Table 3.2: Program of LarKC Phact Workshop (Wednesday, April 20th, 2011).

Session	Presenter
Hand-on 3: Integrating external/internal repositories/data sources into LarKC	Vassil Momtchev, Ontotext
Knowledge management/semantic reasoning at Merck KGaA	Abdul Mateen Rajput, Merck KGaA
Introductions by participating Semantic Web companies	Talis, ChemSpider, derivo, ontoprise, fluidOps and ExpertMaker
Hands-on 4: Querying the LLD repository with LarKC	Alexey Cheptsov, HLRS
Causal Mining with LarKC	Michael Witbrock, Cycorp Inc
LarKC, future opportunities and OpenPhacts	Manuel Pastor CADD laboratory at UPF and OpenPhacts, Bosse Andersson AstraZeneca
Final discussion, next steps...	Alexey Cheptsov, HLRS, Bosse Andersson, AstraZeneca

- Instructions need to be improved.
- Need to lower the entrance barrier for start using LarKC.
- Need assurance for LarKC's sustainability.
- More plug-ins and good examples are needed

### 3.5.3 Early Adopters Tutorials and Workshops

To foster the creation of the early adopters community, several tutorials have been organized with the goal of showing results to interested researchers and providing them with an opportunity to get in direct contact with LarKC technology and the key developers behind it.

We have organized four early adopters tutorials/workshops in the past:

**1st Early Adopters Tutorial** The first early adopters tutorial was held in conjunction with ESWC 2009 in Crete, Greece on the 1st of June 2009. This was the first opportunity for the research community to get their hands on LarKC results and the event was well attended.

**2nd Early Adopters Tutorial** The second early adopters tutorial was held in conjunction with ISWC 2009 in Washington DC, USA on the 25th of October 2009. This tutorial enabled participants from the US to get access to early research results and technologies from the LarKC project.

**3rd Early Adopters Tutorial** The third early adopters tutorial will be held in conjunction with ESWC 2010 in Crete, Greece on the 30th of May 2010. This tutorial will enable participants to get access to early research results and technologies from the LarKC project.

**4th Early Adopters Tutorial** The fourth early adopters tutorial will be held in conjunction with next LarKC project meeting on the 13th November 2010 in the Gongda Jianguo Hotel, Beijing University of Technology, Beijing, China. This tutorial will enable participants to get access to early research results and technologies from the LarKC project, and will mainly focus on Chinese Semantic Web researchers, developers, and companies.

We plan to organize another tutorial for SemTech2011 in San Francisco.

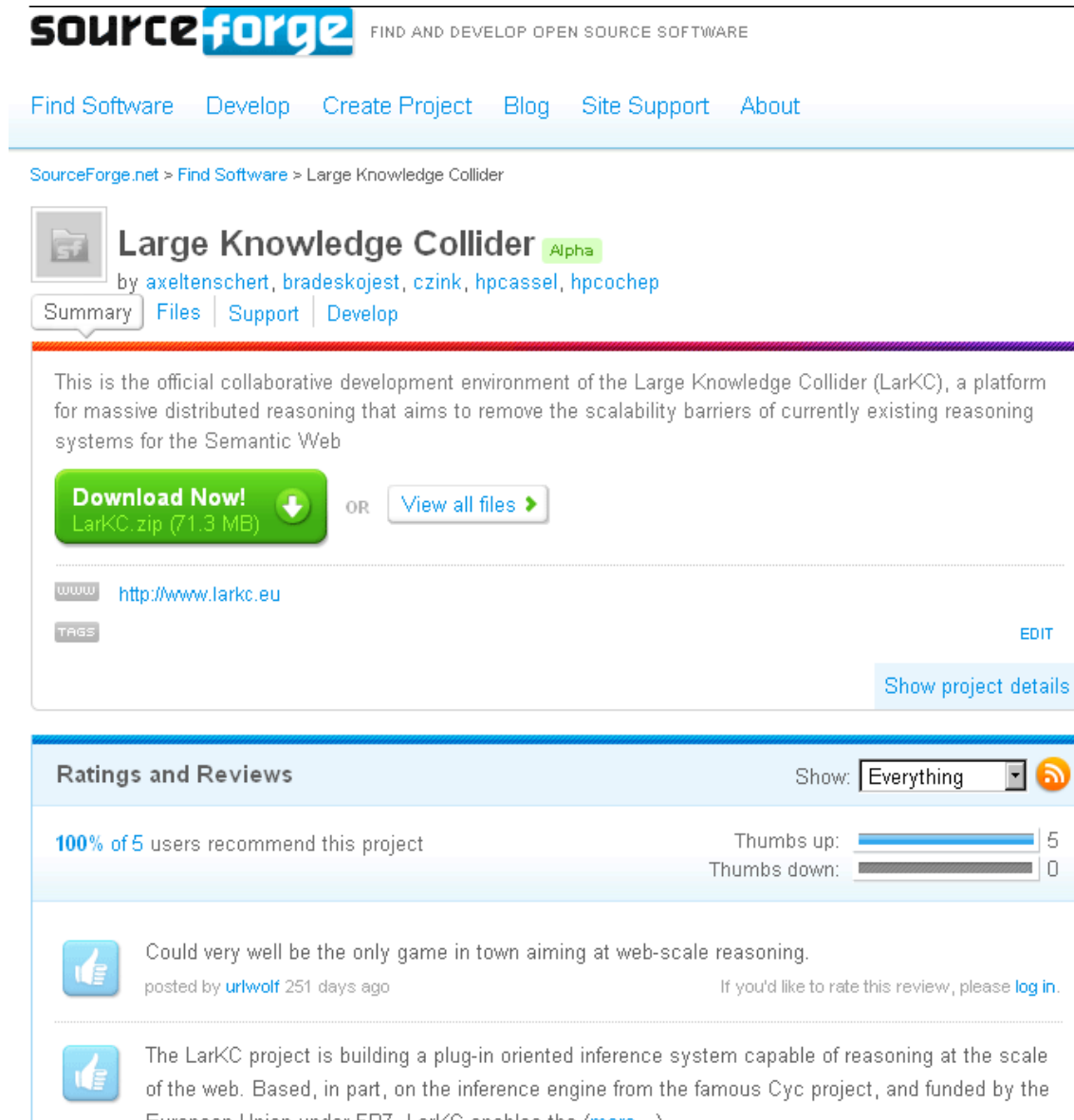
### 3.6 LarKC Developer Forum

The LarKC Developer Forum provides a forum to early adopters and developers for the discussion of issues related to the LarKC platform. The developer forum is currently hosted on the SourceForge system at <http://sourceforge.net/projects/larkc/>. It provides a number of different ways in which developers can discuss issues and raise problems related to the LarKC platform to the development team.

- **Forums:** Two different forums are provided where open discussions regarding the larkc platform can occur. The **LarKC-developers forum** is used primarily by internal and external developers to discuss issues related to the development of the LarKC platform. The **LarKC-users forum** is used by those developing plug-ins or those building new LarKC workflows from existing plug-ins to discuss issues related to their development efforts.
- **Trackers:** The trackers at the LarKC developer forum provide a structured way for developers and users to raise issues against different parts of the platform, and particular plug-ins or workflows. The **bug tracker** is used to raise issues in the case of finding errors in the way in which these components operate. The **feature request tracker** is used to request new features in the platform, a particular plugin, or a certain workflow. The **patches tracker** is used to provide information, either from developers to users or from users to developers on patches that work around certain existing issues in the larkc platform. Finally the **support tracker** is used for raising technical support tickets so that users can request help in identifying if a particular issue is a bug, a missing feature, or just an error in using the platform.
- **Mailing Lists:** Three mailing lists are provided that provide a means of communication between developers and users, without having to resort to the web portal. The **larkc-commits** mailing list is populated by automatic messages whenever new the larkc source code is updated. This provides a means for developers and users to track when changes of the codebase occur and by whom. The **larkc-dev-support** and **larkc-user support** provide mailing list for communication between platform developers and plugin and workflow writers respectively. Each of these mailing lists is regularly checked by members of the LarKC development team in order to quickly give feedback to early adopters. Each of the mailing lists also have an archive such that developers and users can check out older messages for solutions to current problems.
- **Releases:** This area of the developer forum provides a download section from which the latest versions of the LarKC platform can be retrieved. Developers and

users can register for notifications of when new files are added to this download area, such that they can stay up to date with the latest version of the platform.

To improve the visibility of the LarKC development effort the LarKC project has been migrated to the Sourceforge web site. Screenshots of the LarKC platform at SourceForge and the current LarKC developer forum there are shown in Figures 3.1 and 3.2.



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SourceForge.net > Find Software > Large Knowledge Collider

**Large Knowledge Collider** Alpha  
by axeltenschert, bradeskojest, czink, hpcassel, hpcochep


Summary Files Support Develop

This is the official collaborative development environment of the Large Knowledge Collider (LarKC), a platform for massive distributed reasoning that aims to remove the scalability barriers of currently existing reasoning systems for the Semantic Web


**Download Now!**  **LarKC.zip (71.3 MB)** OR [View all files](#) 


<http://www.larkc.eu>

[Show project details](#)

**Ratings and Reviews** Show:  

**100%** of 5 users recommend this project

Thumbs up:  5  
Thumbs down:  0

 Could very well be the only game in town aiming at web-scale reasoning.  
posted by [urlwolf](#) 251 days ago If you'd like to rate this review, please [log in](#).

 The LarKC project is building a plug-in oriented inference system capable of reasoning at the scale of the web. Based, in part, on the inference engine from the famous Cyc project, and funded by the European Union under FP7. LarKC enables the [\(more...\)](#)

Figure 3.1: The LarKC Platform at SourceForge.

Software development is an important aspect of the LarKC project. LarKC has always striven to achieve the highest standards of the open source software development process, offering the developers, adopters and end-users a reliable environment for the development and maintenance of the software solutions. Guided by the user feedback and considering the growing number of both external and internal contributors to the LarKC developments, a Forge-based collaborative development environment was set up and hosted by the SourceForge.net service. The new LarKC@SourceForge.net development environment is not limited on the number of external users, as before, and

sourceforge Find Open Source Software Browse Blog Support Register Log In

SourceForge.net > Projects > Large Knowledge Collider > Forums > LarKC-Developers

## Large Knowledge Collider Share

Summary Files Reviews Support Develop Hosted Apps Tracker Mailing Lists Forums Code

**LarKC-Developers Monitor**

The developer support forum

Enter Keyword  LarKC-Developers

Topic	Replies	Started By	Last Action	Options
<a href="#">ProbabilisticRDFTransformer plugin questions.</a>	1	ellona	2011-07-01 12:38:41 UTC	Monitor
<a href="#">Closeable iterator losing variable bindings?</a>	1	tonganqn	2010-06-03 11:12:27 UTC	Monitor
<a href="#">TREE exception in simple pipeline</a>	2	tonganqn	2010-06-03 08:27:59 UTC	Monitor
<a href="#">Runtime error accessing conf dir</a>	0	mwithbrock	2010-04-05 02:48:28 UTC	Monitor
<a href="#">Checkout for Platform fails in Netbeans</a>	2	mwithbrock	2010-04-04 19:50:07 UTC	Monitor
<a href="#">Support for IDEs</a>	0	mwithbrock	2009-10-18 03:24:16 UTC	Monitor

Figure 3.2: The LarKC developer forum at SourceForge.

allows sharing the LarKC innovative technologies with the global audience. To the main LarKC@SourceForge.net's features can be referred the following:

- subversion-based version control system for accessing and management of the source code (available at <https://larkc.svn.sourceforge.net/svnroot/larkc>)
- file release system for easy downloading the released software (<https://larkc.svn.sourceforge.net/svnroot/larkc>)
- powerful user and developer support system, including the user support forum and mailing list (a more detail description is provided at <http://wiki.larkc.eu/LarkcProject/WP5/LarKC-SourceForge>).

The only requirement for getting started at LarKC@SourceForge.net is to have a valid account at the **SourceForge.net**. A new account can be purchased at <http://sourceforge.net/account/registration>. For accessing the new software repository, the account should be approved by the project administrator. The new repository contains the revision 759 of the older repository. The users who have any updates to this revision, should commit them directly to the new repository, following the same procedure as for the previous repository.

### 3.7 Chinese LarKC Developer Forum

Following the release of the Chinese LarKC web site (<http://cn.larkc.eu>) and several LarKC-related documents in Chinese (including a translated user manual, introduction paper, slides, etc.), the LarKC project provides a LarKC Chinese Forum (<http://www.w3china.org/larkc>) for Chinese semantic web researchers, developers, and users.

The forum is located on the W3China website, i.e., the most influential Chinese WWW developer website devoted to promote W3C related technologies. We are grateful to W3China for providing the special forum on their website. LarKC members are available for answering LarKC related questions and many up-to-date LarKC news and documents will be shared by means of this forum.

## 4 CONCLUDING REMARKS

In this document, we have reported the current status of the internal and external training activities within the LarkKC project. The internal training activities included nine internal meetings and workshop on various training issues, ranging from plug-in development to platform coding. The external training activities included several workshops. In this document, we have also reported the PhD and researcher exchange activities and internal tutorials within the LarkKC consortium. The internal and external training activities have been regularly reported in all the versions of this document (from version 1.0.0 till version 4.0.0).