RKBExplorer – Some Scenarios of use

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1 - A student is looking for information about resilience for his PhD Thesis

Scenario:

Charles Widmore is a student of the PhD in "Telematics and Information Society" and is writing his PhD thesis titled "Resilience in safety critical systems. The Italian Railway System". He is looking for useful information about resilience. He founds on the Internet the Resist Project Page (www.resist-noe.org) and from here he founds the RKBExplorer page (www.rkbexplorer.com). What he needs is general information about: resilience, existing tools used to provide resilience, current European projects about resilience, resilience experts to contact for further information.

Execution:

He first wants to know something about ReSIST, so he clicks on All Known Data. He reads the project information and comes back to the main page.

He also notes down the name of the Project Leader (to contact for possible questions). He clicks on his name, under People, and finds his e-mail (laprie@laas.fr) under details.

He comes back to the home page, he clicks on and choose Resilience Mechanisms . He gives a look to resilience mechanisms, and then clicks on Ad hoc routing in resilient ambient systems. He reads the description under details and realizes he is not interested in it.

He clicks on Heuristic Evaluation and reads the description. He's interested, so he clicks on Alberto Pasquini, under People. He finds contact data (e-mail, phone number), and he notes down them in case he needs further information.

He sees this author also submitted CRIA - Critical Interaction Analysis Method and clicks on it. He reads the description. He wants to know which European projects about resilience are using this tool. Under Projects he finds this list.

Now he wants to find something on his specific domain of interest (transport); he goes to the search form, and inserts "transport".

He finds 100 publication. Clicking on the first (Towards a Cooperation Knowledge Level for Collaborative Problem Solving) and then on All Known Data, he reads the abstract. He's very interested in it. Down on the page he finds the authors, the year of publication and web site links where he could download the paper (http://eprints.ecs.soton.ac.uk/2127/)

He then comes back to the publication page, and clicks on the arrow next to the author's name. Here he finds that he also wrote other interesting publications.

He uses the search function again, looking for "Transport". He finds 100 projects related to transport.

He is interested by Transport and Risk Communication, so he clicks on it and on All Known Data and reads the project description. He thinks it is interesting so he note down the project name as he could need to quote it while writing his thesis.

He reads the description of other interesting projects.

Now he would like to try to make his research more specific, so he looks for “Railway” using the Search form. So he finds a lot of publications and projects related to Railways. First he chooses to have a look to the publications, clicking on A Combined Constraint-Based Search Method for Single-Track Railway Scheduling Problem. Then he clicks on Web Address and finds a preview of the paper.

So he continues looking at the most interesting publications, noting down their names or downloading them (or their previews). For the most interesting ones he looks also for related European projects.

2. A person is looking for partners to start a project about resilience

Scenario:

Ing. Mark Knopfler has a good idea about a project, regarding the development of hardware and software tools to enhance ATM resilience. In particular he would like to improve the current means of decision-making (to suggest to the ATCO the easy way to solve problems) and communication (electronic means to communicate and give/share tasks) between ATCOs.

He finds an EU call for proposal on this theme and he wants to submit a project. Now what he needs is to find partners. To choose the right partner he needs to know:

- *typology of subject (SME, University, industry, etc) : he needs Human Factor Consultant companies, Software and Hardware Engineering companies, Service Providers, Universities and Research Centers.*
- *former experience in ATC and participations to EU projects: he would like to know if the subject has already taken part to a EU project regarding resilience or the ATM world*
- *contacts details*
- *information about persons: He needs experts in resilience, software and hardware engineers, human factors experts, researchers, etc.*

Looking for information on the Internet he finds the Resist web site and from here the RKBExplorer web site.

Execution

First of all, he would like to take a look to the Projects, to see if there is something similar to the one he wants to carry out . From the list of projects related to ReSIST he choose Network of Excellence in Distributed Computing System Architecture.

He would like to know more about the project, so he clicks on All Known Data (under Details) .

He reads the brief description of the project, and he realizes he's not interested in it.

He goes back to the home page and chooses NEXT TTA - High-Confidence Architecture for Distributed Control Applications from the map.

He clicks on All Known Data and he reads the brief description of the project, he's interested in.

He return to the project page to see what people and subjects are involved. He gets the list of possible partners; he finds universities, software and hardware engineering companies.

First he clicks on Technische Universitat Darmstadt . Under "Details" he finds the university web site.

He also sees the projects in which this university is involved. Clicking on the button he chooses Research Areas, so he can also see the main research areas this university has worked in.

He thinks it could be a possible partner, so he notes down its name and its website.

Now he comes back to the project page (clicking in the project list)

He clicks on the second organization Universität Ulm. He finds the website, the research areas and the projects in which it is involved.

He goes back to the main page and clicks on ?, near to AUSTRIAMICROSYSTEMS AG, under Organizations. He can see who from this subject worked for the project (he thinks he could contact him directly).

He clicks on Marco DE MARINIS. He notes down the phone number. He wants to know if he has worked to other projects about resilience, but no.

He comes back to the project page, and clicks on other partners and notes down useful information (name, web sites, phone numbers).

Now he wants to look for another project in the same areas, he looks in the related projects but he doesn't find anything similar to his project. He tries the search function, looking for "ATC". He finds 97 results.

He's interested in the first one AIRPORT TOWER HARMONIZED CONTROLLER SYSTEM, and he clicks on it.

He would like to know more about the project, so he clicks on All Known Data, and he reads the project description. He thinks it is interesting.

He goes back to the project page. He clicks on ?, near Alcatel ISR: he finds that *Alain-Francis STÉBÉ (Mr)*, is associated with *Alcatel ISR.*

He notes down information about the other related organizations (Alenia Un'Azienda Finmeccanica SpA, Daimler Benz Aerospace AG, etc).

He carries on using the search function to find interesting projects regarding the ATC world and controllers work. He notes down information about organizations: their projects, websites, phone numbers, information about the people working for them (contacts, projects, etc).

3. A person needs to solve one resilience problem

Scenario:

Nadia Vidal is the Project Manager of the "SafeCOM" project; she works for ENAV, the Italian Air Navigation Service Provider. The project aims to develop new cockpit tools, to provide pilots information, alerts and suggestion about traffic, weather, military areas, terrain proximity, etc. The project provides a safety assessment activity. She attends a conference about resilience, and she is attracted by this kind of approach to safety. She would like to know more about resilience, to understand the differences between this approach and the traditional one, and, in case, find a partner to entrust with her project's safety assessment activity. She goes to the RKBExplorer site, looking for best techniques and practices, professionals and organizations.

Execution

She would like to find organizations which have already done safety assessment activity in projects in the ATM area.

So she first tries to enter "safety assessment".

Under Publications she clicks on Safety assessment of experimental Air Traffic management procedures. Under Details she clicks on the Web Address and she gets the paper. She reads it and finds it very interesting. She comes back to the publication page and clicks on Deep Blue Srl, the organization that submitted the publication. Here she finds contact details of the organization and writes down them.

She knows she wants to see in which projects this organization works on. She finds particularly interesting AIRBORNE INTEGRATED SYSTEMS FOR SAFETY IMPROVEMENT, FLIGHT HAZARD PROTECTION AND ALL WEATHER OPERATIONS. She clicks on it and takes a look to the Organizations; she is particularly interested in Universities, Research Centers and Human Factor companies. She clicks on them and writes down contacts details.

Under Mechanism she clicks on CRIA - Critical Interaction Analysis Method. Under details she finds the description and she finds the mechanism very interesting. She writes down the author name.

Now she goes to the Search function and looks for "safety assessment". Under "Related Projects" she finds Enhanced safety assessment for complex systems (ESACS) and she clicks on it. She clicks on All Known Data and she reads the project description. She finds it interesting.

She comes back to the project page and looks which organizations contribute to the project. She notes down the Italian ones.

She comes back to the search function, looking for "Resilience". She looks under Publications and finds a lot of interesting titles. She clicks on Constraint Based Resilience Analysis. She clicks on the Web Address and she gets paper preview, and contacts details of the author. She carries on reading publications about resilience, looking for the organizations that submit the most interesting and the one regarding the ATM world. She looks for the project they do and writes down the contact details of the ones that seem the better in dealing with the security assessment activity she needs

Considerations about scenarios

In general

The most frequent problem encountered was the different level of description of the different items. For example sometimes a project or a publication doesn't have a description, or sometimes it is possible to find contact details of a person, sometimes it is not possible.

In the "scenario execution" I have always taken off the patch chosen which, even if logical, takes to a page where no information can be found. I left only the pages with a good quantity of data and bugs-free.

I tried to make the scenarios as short as possible.

I found that a way to get the complete list of projects, mechanisms, organizations, publications and people, could be useful.

2. A person is looking for partners to start a project about resilience

I found that an indication of the nationality of the organization could be useful.

With respect to the contact information, the e-mail address would be more appreciated than phone numbers.

3. A person needs to solve one resilience problem

A brief description of the organization would be appreciated. Sometimes it is not easy to understand what an organization does just looking at the name.

Technical problems

I had experienced some problems using different browsers: with Firefox sometimes if I use the browser's "Back" button the map disappears, and a red cross is shown. With Chrome the map doesn't works.

Sometimes some information, like a project description, are accessible only opening a new page (e.g. clicking on the "All Known data"), where data are presented in a quite difficult-to-understand way. Some of the links provided here are not working (they generate an error or show html code).