RODIN Deliverable D3

Initial Dissemination Report

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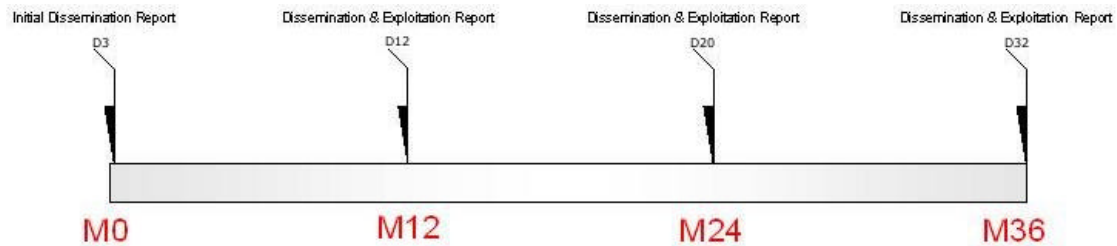
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Table of contents

1 Introduction

This document aims at outlining an initial plan for use and dissemination of knowledge, to raise public participation awareness and to report project initial work on dissemination and exploitation from RODIN.

Successive releases of the Dissemination and Exploitation Reports (respectively, deliverables D10, D20, D32) will be provided (respectively, months M12, M24 M36).

2 Dissemination and exploitation

This section presents our dissemination and exploitation strategy, action items undertaken or to undertake in order to achieve our objective.

2.1 Strategy

Our objective is to obtain a tested, open platform, fit for use by industry for the development of fault-tolerant systems. This platform should fulfil the "three U rule", ie *Useful*, *Usable*, *Used*. To verify this rule, we consider that the following assertions should hold:
- [A1] The platform has successfully analysed the 5 case-studies of the project. Positive feedback has been collected among project partners.
- [A2] Positive feedback has been collected among IIG members. Some of them have provided plug-in specification and/or complementary case-study, have initiated assessment project, and/or have started to use/contribute to the platform.
- [A3] Positive feedback has been collected from academic world. The platform is explicitly supported by several universities outside the consortium. They will provide for example
    - o tested and packaged releases of the platform in an easy-to-install form;
    - o documentation and examples of use for the platform and selected plug-ins;
    - o creation of basic plug-ins for client tools.
  A pool of developers has been set up and contributes to the platform.
- [A4] Some dedicated plug-ins are commercially available and have been sold/are about to be sold to companies.

[A1], [A2] and [A3] are the criteria for assessing the technical interest of the platform. If [A1] is part of WP1, [A2] and [A3] require a specific dissemination policy in order to enlarge the community around the platform as much as possible, and to ensure technical support from the open-source world.

[A4] is the main criterion for building a realistic business plan and envisaging a commercial future for the platform. This criteria would only be checked at the end of the project, as advanced platform will not be delivered before the last year of the project. Though identification of commercial plug-ins should be performed before the last year, in order to have time to develop them.

We will incorporate usability-related metrics (for both individual users and for companies) into the WP 7 work

The following action items are entirely driven by those four criteria [A1], [A2], [A3] and [A4].

2.2 Action items

2.2.1   Advertisement

This action item aims at improving the awareness of the platform among both industry and academic worlds. Envisaged targets are entities involved in the formal methods, fault tolerant systems and/or system-level modeling.

2.2.1.1   Internal dissemination.

All partners have presented or will present the RODIN project in their own university/company. In particular, RODIN summary was presented to the school of Computing Science (University of Newcastle upon Tyne) research meeting in July 2004 by A. Romanovsky.
Further presentations will be organized for each major milestone.

2.2.1.2   External dissemination.

Information. The project plans to organize several workshops, in connection with international conferences. These conferences will be carefully chosen in order to maximize dissemination and to address targeted application domains.
- In August 2004 information about RODIN was distributed to the top 10 software companies in the North East, including Codeworks, Aol, Btinternet and to OneNorthEast (news/information forum).
- In October 2004, C. Snook has presented a technical paper ([Johnson & al 2004]) at a workshop at UML 2004.
- RODIN is committed to organising a workshop at FM'05 in Newcastle on 18 or 19 July 2005.

Internet. Two RODIN Web sites have been created:

- the official site, hosted by UNew and reachable at http://rodin.cs.ncl.ac.uk/. This site fulfils the requirement of deliverable D1. This site has been populated with background papers.
- the developer site, hosted by sourceforge and reachable at http://rodin-b-sharp.sourceforge.net/.

The measurement of RODIN website hits from foreign IP addresses will provide an estimate of the awareness and the interest concerning RODIN in both the industry and academic worlds. Reverse links are used to improve our Google score, thus improving our visibility on the Net.

The start of the RODIN project has been announced via several mailing lists: B User Group, Formal Method Europe (including Italian, Portuguese and Indian hubs).

Publications. Several articles have been published or are in preparation. They are listed below:

- A brief summary of RODIN has been submitted to ACM Software Engineering Notes (http://www.acm.org/sigsoft/SEN/) and will be published in the coming issue.
- A brief RODIN description has been published in British Computer Society FACS (Formal Aspects of Computing Science) Specialist Group Newsletter (issue 3, 2004) http://www.bcs-facs.org/newsletter/
- Some papers have been published or presented with acknowledgments to RODIN ([Guerra *et al.* 2004], [Schröter *et al.* 2004], [Guelfi *et al.* 2004]).
- A 7 page description of RODIN (co-authored by C. Jones, I. Oliver, A. Romanovsky, E. Troubitsyna) has been prepared and will be submitted to EDCC-5 conference (http://sauron.inf.mit.bme.hu/EDCC5.nsf) in November 2004.
- A. Iliasov and A. Romanovsky are preparing a paper on exception handling for mobile Linda-based systems to be submitted to Coordination 2005 conference in December.
- M. Koutny. Petri net semantics of the pi-calculus: Conf Concur, March 2005 (paper in preparation)
- M. Koutny. Unfoldings for Petri nets with read arcs: Conf TACAS, August 2005 (paper in preparation)

- M. Koutny. Unfolding based model checking for ambient systems. May 2005 (paper in preparation)
- J.R. Abrial and D. Cansell : Formal Construction of a Non-blocking Concurrent Queue Algorithm (a Case Study in Atomicity), to be published in the Journal of Universal Computer Science (JUCS).
- J.R. Abrial, D. Cansell and D. Méry: Refinement and Reachability in Event B. Submitted to ZB'05

2.2.2 Synergy

Our objective is to build synergy with other projects, which could complement / strengthen our activities. Different means are to be used: Cordis database (http://www.cordis.lu), national R&D networks, partners relationships.

A first potential connection has been identified with the French regional funding program for Microelectronics Industry (PACALAB) and one of its project, ForComent (Formal Codevelopment). Generation of SystemC/TLM from a B model is under evaluation.

RODIN has been presented at the FP6 Call2 follow-up meeting, organized in Brussels, 4 November 2004. Several interesting contacts with other projects (MODELWARE, DeDiSys and AOSD) may possibly lead to information/tool/method exchanges and improve cross-fertilization. In particular, design experience could be shared as AOSD, MODELWARE and RODIN are developing an Eclipse-based platform.

2.2.3 IIG

The Industry Interest Group is today composed of 8 members: Adelard, Alstom, AWE, DGA, Gemplus, IBM, ICCC, RATP, STmicrolectronics and VTT.
RATP and Alstom joined in June 2004, VTT (Finland) and AWE Aldermaston joined in October 2004.
Several meetings, formal and informal, have been organized in September to present the RODIN project and the event B philosophy, namely:

15/09/04	Direction Générale de l'Armement (DGA)
16/09/04	STMicroelectronics
28/09/04	Alstom Transportation Systems
28/09/04	Régie Autonome des Transports Parisiens (RATP)

The objective of these meetings was to explain the very goal of the project, and to insist on the importance of their feedback. DGA is quite interested by technical aspects of the

project and has proposed to support RODIN by completely funding at least one PhD in 2005, in relation with simulation and RAMS[1] studies.

Active search for new members will be launched when concrete results (ie demonstrator) are available.

2.2.4   Associates

We encourage academic researchers to register as associate, in order to have a privileged access to RODIN information. For the time being, several researchers are registered as associates:

- Carroll Morgan (University of New South Wales)
- Ron Van der Meyden (University of New South Wales)
- Nicolas Guelfi (University of Luxembourg)
- Reza Razavi (University of Luxembourg)
- Jean Louis Boulanger (Université Technologique de Compiègne)
- Pierre-Yves Schobbens (Facultés Universitaires Notre-Dame de la Paix / Namur)
- Christophe Ponsard (CETIC Applied Research center / Charleroi)

2.2.5   Plug-in identification

During the lifetime of the project, we will collect all feedback from the partners of the consortium, from IIG members, from associates and from all other sources available. We will pay a particular attention to requirements for new plug-ins, with the underlying idea of developing, if possible, commercial-quality tools. This requires from us to be responsive and adapt to the demand, given the financial and technical limits of the project.

As a sequel, the platform should be sufficiently flexible to enable the design of specific extensions and the seamless packaging of dedicated application.

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[1] Reliability, Availability, Maintainability, Safety

3 Dissemination and exploitation financial plan

The objective of this section is to present a "business plan" for assessing / validating further commercial exploitation, including creating a dedicated subsidiary.

For the time being, the visibility is not sufficient to precisely set-up a business plan, as the platform has not yet proved to be sufficiently attractive to address any existing/potential/future market. External feedback is required to assess the validity of such an approach.

At the end of the project, this business plan should clearly state if the commercial exploitation of the platform is feasible, and under which conditions. The creation of a dedicated subsidiary / association will be envisaged and evaluated in both financial and organisational terms.

This business plan should clearly define the product resulting from the project and its form (packaging similar to Mandrake distribution for example, training, consultancy, …), and should contain an analysis of the market, an operational and a financial description of the entity in charge of the exploitation, if any.

The structure of the business plan is presented below:
Marketing plan
> Industry trends
>> Identify opportunities to create a product or a service that will satisfy the needs of a particular customer base
>> Key success factors, barriers
> Product/service
>> Definition of the product and the service.
>> Distinctive features
>> Features fulfill identified needs and gaps in industry
> Target market
>> Market size
>> Enough people willing to buy the product
> Competitive analysis
>> Understand competitive environment
>> Differentiate the product, identify areas currently being not targeted
> Marketing mix: promotion, place, price, product

Operational plan
> Suppliers
> Manufacturing plans

Operating requirements
Human resources

Financial plan
Start up costs
Cash flow statement
Income statement
Balance sheet

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