Freelance Center for Commercial
Technology Research and Development

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A Center for Research
in Technology Innovation
for Software Engineering

Operated by

Freelance Research Center

December 2, 2009

Overview

Background

— Vision
— Research and Development Challenges
— Research Team

Phase I—Proof of Concept

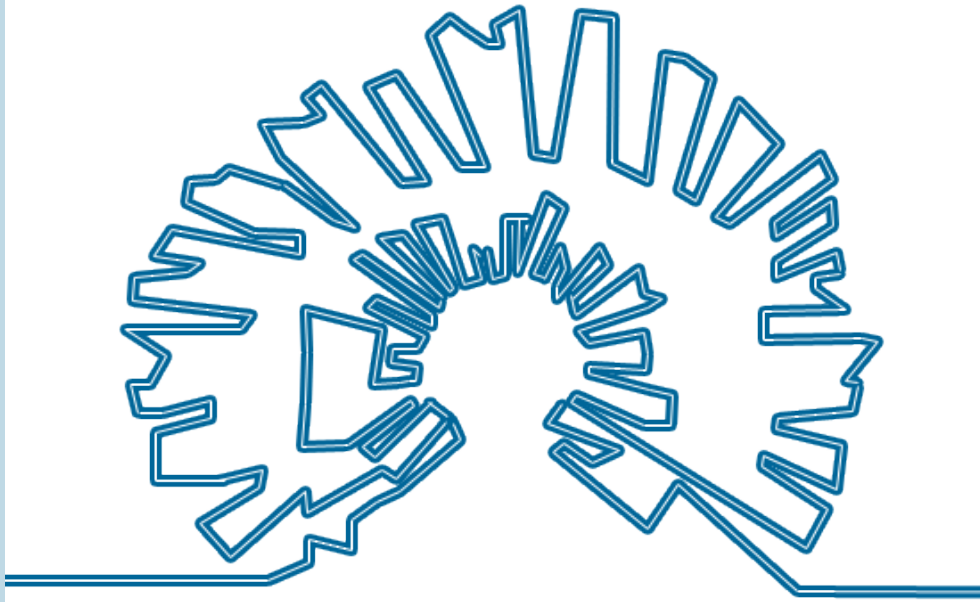
— The Concept
— The Schedule
— Achievements
— The Mission
— Menta Learning Content

Looking Ahead

— Phase II Strategy in Development Menta Commercial Solution

Our Vision

Equipped with highly developed knowledge sharing skills, feasible future development plans and R&D teams will successfully leverage team member expertise to develop revolutionizing invention of Menta solution destined significantly decrease a development handwork is inherent in Software Development projects.



Research Challenges

Understanding and identifying the system requirements.

Menta is capable of implementation of the software development lifecycle from textual information into actual implementation as a software application (code generation) by using IT specific domain knowledge sharing.

Menta is capable of making analysis and understanding of architectural HL-LL Design…

… and implement recognition mechanism of changes and creating appropriate frameworks for building solution without human input .

Provide real Capability

to squeeze tenfold the period between the design concept realization and the code written and debugged output.

Adapted Natural Guessing Language Mechanism

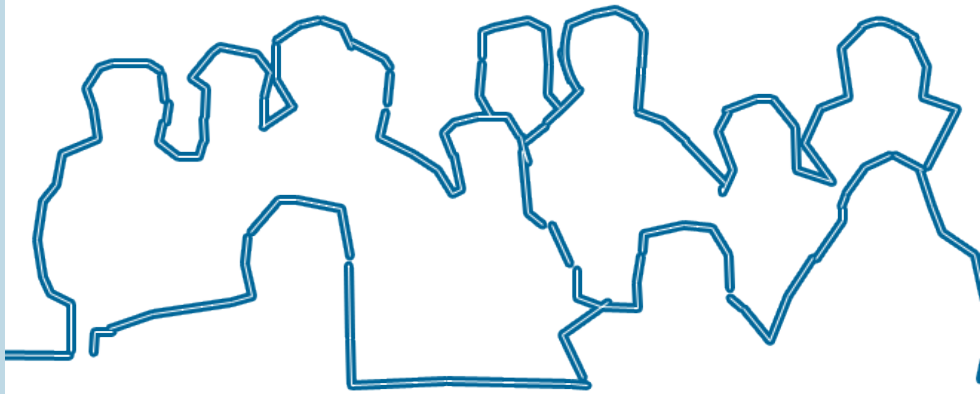
using IT domain specific knowledge base provides rapid and automated prototyping, clearly demonstrates a great efficiency for developing new or extension of functionality system design by analyzing and preparing itself a LLD specification designed for farther self code-reporting generation.

NO affection to particular business applications and technical platforms

Menta is capable modify low level code, with no frameworks, that have been generated for best performance and then optimize according functional specification or change request procedure and bug report for application modification on base of layered structure of targeted application without linkage to particular technical platform.

High-skilled developers

Menta is developed by a constantly growing team of high-skilled developers with a rich professional background.



1 Develop stand-alone mission scenario

"Menta self specification generation and Code production": Fully automated a model-based replacement technology platform with self design application and code executable mechanism.

2 Use mission scenario

as basis for Creating Commercial Solution to have an impact on Software Engineering domain: Emphasizing on software development techniques to significantly reduce developers involvement, provide domain automate prototype and development expertise.

3 Use practical and academic learning experience

as a research based development approach to conduct future studies that address: Process of real life change request, specification and/or bug reports into set of statements with executable mechanism to resolve the bug or implement specification, change request over current application with self learning curve for farther parsing applications created on one of modern languages: Java or C# to run set of the actions.

Phase I Schedule of Menta POC

- Business Concept
- Develop Detailed
- Conduct
- Review & Analyze Results
- Prep Final POC & Limited Functions

Key Events

01/3 Business Objectives Design

01/1—01/12 Prototype Critical issues

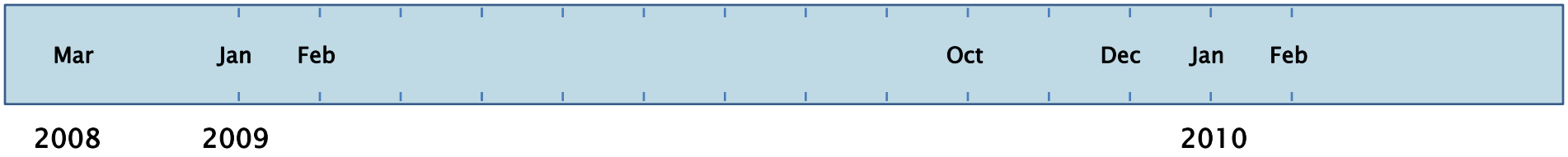
01/2 Natural Language processor bottlenecks

20/2 Domain reasoning

01/10 Quite long learning curve of the perceiving module

05/10 Domain knowledge update

01/2 Phase II



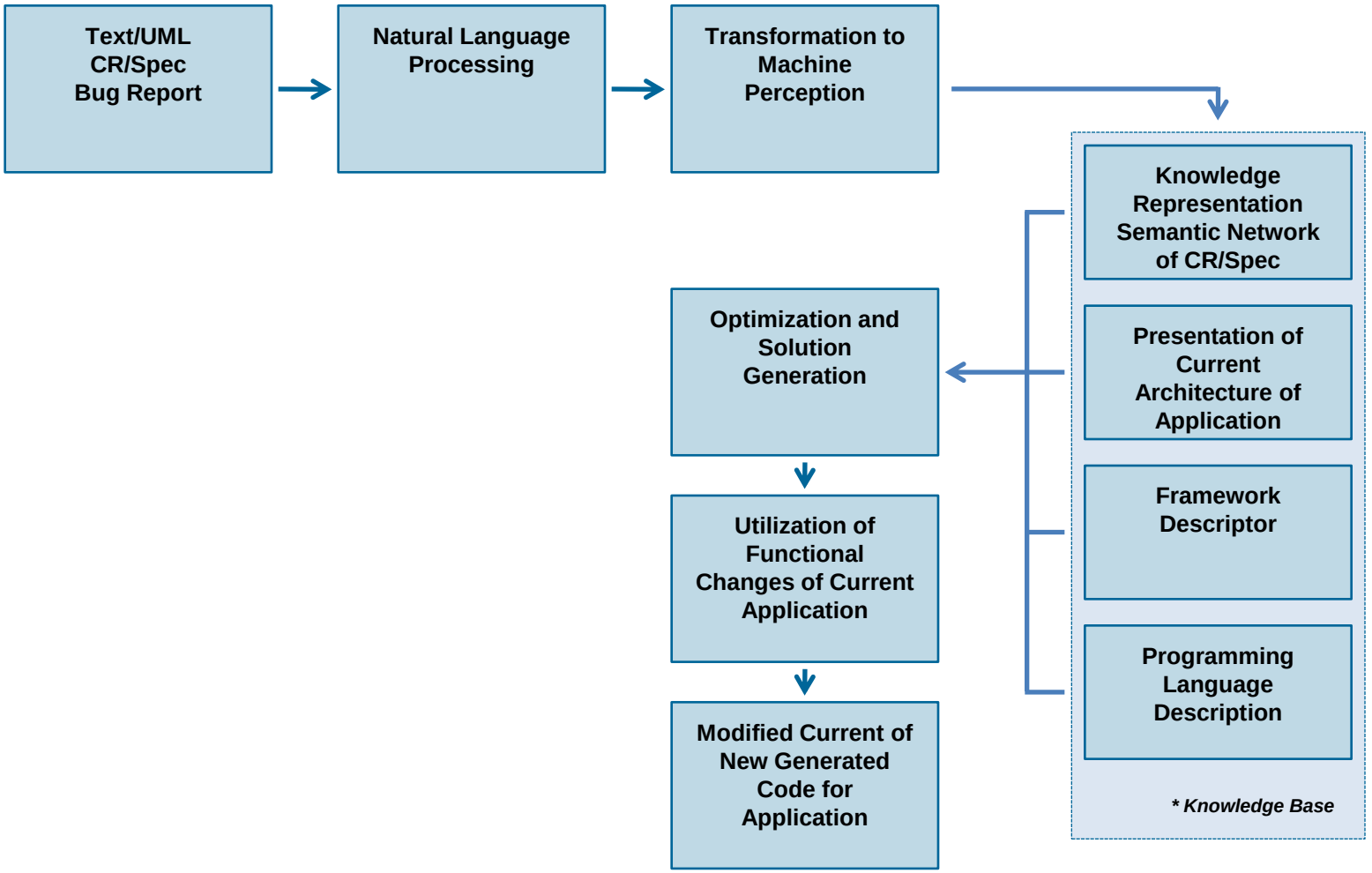
Developed “Menta Proof of Concept” Learning Experience

— Menta Behavioral Tendencies in Application Development cycle
— Recognition of English Language Computer Area-Specific Expertise
— Perceptions of system text specification
— Perceived Text Data, Use Case Diagram, Specification, CR, Bug Reports to LLD and cod generation mechanism
— Frameworks (Coding) schemes for differ programming language (implementation in commercial version)

Proof of Concept performance

— Completed main function (automated code generation mechanism)
— Developed Plans for commercial version
— Teams—comprehend and assimilate R&D into commercial

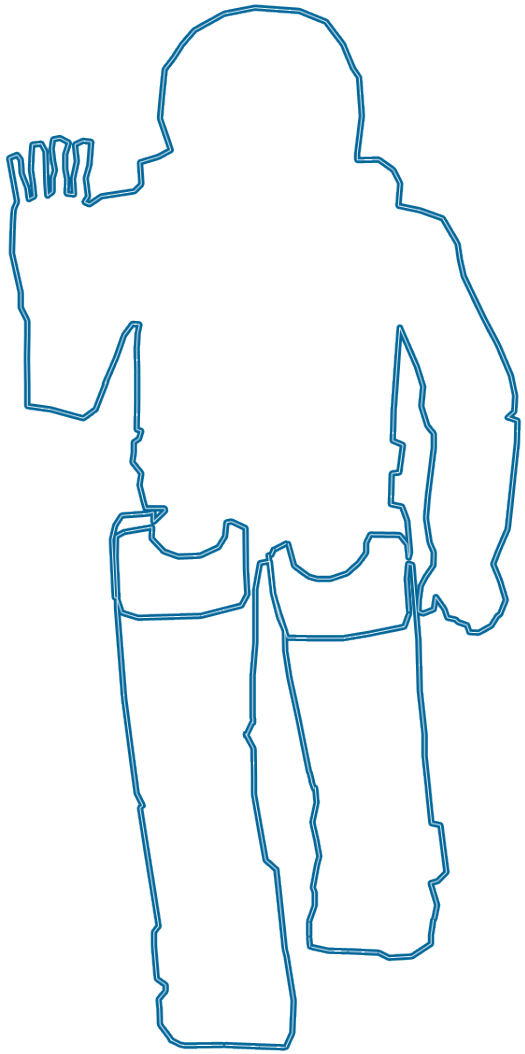
How it Works


Text/UML
CR/Spec
Bug Report
Natural Language Processing
Transformation to Machine Perception
Knowledge Representation Semantic Network of CR/Spec
Presentation of Current Architecture of Application
Framework Descriptor
Programming Language Description
* Knowledge Base
Optimization and Solution Generation
Utilization of Functional Changes of Current Application
Modified Current of New Generated Code for Application

The Mission Scenario

Whether vendors develop new software or adopt an existing vendor's solution, including ERP system, organizations need a development resources or platform that makes it easy to develop new functional, provide software support or integrate disparate information systems and rapidly customize the application logic in cost effective manner. Put into practice *Menta Revolutionary Technology Platform* gives a vendor chance to escape from current cost-is-no-object approach and allow unlock offshore manufacturing chains.

Replacing current hand work Model-based development, Menta technology solution provides with minimum human touching and represents a significant change in software development and coding process and cultural approach.



Use Menta POC learning experience with R&D professionals to:

Evaluate its effectiveness at increasing necessary functional for software engineering domain

For current system enhancement or legacy modernization provide system analysis with new requirements and to convert to low level architectural design. Code will be generated by Menta.

Provide new ongoing rapid automated prototyping platform as executed mechanism inside Menta reduce a number of engineers needed for design, prototyping, development and production code issues.

Easy to use Menta functions with market presented products on different hardware platform. As it should be reused, the generated code will be specified and transformed so that it fits to these different architectures.

Provide software supplier or OEM working with adoption a Menta's process that limits the extensive work experienced with written, maintained code when it is about code transformation, adaption and migration from an environment to another through Menta self programming environment.

Using Menta as a Verification & Validation simulation software system. Menta can link a part of the designed model in simulation software to its system specification (either using a Microsoft Word document / UML class diagrams or software dedicated to specification management system). On running itself simulation, it reports if the system will pass or fail those requirements and highlights the part of the model that initiated has a wrong behavior.

Questions?

For further information contact

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