



RESCENTRIS

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Rescentris Releases Version 2.5 of its Semantic Notebook, CERF - The ELN for Biology

CERF Development Kit gives clients control of CERF Extensibility Framework with Ontology Manager

Columbus, OH - Jan. 24, 2006 – Rescentris, Ltd., a leading provider of electronic laboratory notebook (ELN) software for biology and multi-disciplinary life sciences, today announced the immediate availability of CERF 2.5 and the CERF Development Kit (CERF-DK) to help life sciences organizations better manage their research information. CERF (Collaborative Electronic Research Framework™) is the industry's only ELN built on semantic web technologies. The semantic engine in CERF enables it to capture the meaning and relationships in R&D information as well as the experimental context in which data are collected – all transparently, while the scientists do their work.

An ontology is defined as a set of concepts and their relationships. The use of ontologies for semantic representations of research facilitates the transformation of data into actionable and reusable research knowledge. "The lab notebook is the key interface between scientists and information assets," stated Rescentris CSO, Dr. Jeff Spitzner, "and CERF 2.5 was designed to accomplish much more than just collecting results and creating research records. We believe it is essential to assist scientists through the entire research process and automate as much as possible so they can spend more of their time engaged in innovative science." The CERF Development Kit was designed in collaboration with clients who are already using it to tailor the CERF experience to the needs of their organizations.

The CERF 2.5 Notebook system is engineered for rapid deployment – out of the box, with only minor configuration - to get the client organization up and running productively. Then the CERF Extensibility Framework makes it easy to adapt the solution to the client's specific needs for workflows and research practices. The Ontology Manager is used for *Knowledge Representation* – to create appropriate scientific data and metadata models, including controlled vocabularies and context-specific forms that provide consistent research annotations. It also manages templates – for a single Notebook entry or all the forms, documents, slots, and protocols structured for a complete experiment – set up using form-based tools, but stored and versioned as OWL ontologies and contents packaged in XML. The CERF 2.5 system also provides *Knowledge Integration*. Data-driven services are registered based on resource types and workflows, and the semantic inference engine ensures that user menus are dynamically updated with available actions. Access to external data sources, such as scientific databases, is provided at the CERF Desktop through simple query forms; the connections are set up on the CERF Server using the form-based Integration Manager to create wrappers with minimal effort and maximum reusability.

“CERF is built using open standards such as XML, RDF, and OWL ontologies”, stated Dr. Joseph Spitzner, Rescentris CTO. “As a result, our clients’ information assets are not held hostage, and their data are not locked away in proprietary formats. CERF 2.5 was designed to future-proof research content and manage it in an open, extensible system that is easily supported, configured, and customized by your IT staff or by Rescentris to meet the demands of R&D for today and tomorrow.” With CERF, Rescentris principals continue their long history of developing standards-based applications, dating back to their 1997 release of the first XML data standard for life sciences, BSML, used to represent bioinformatics data.

Rescentris CERF 2.5 includes:

- **Ontology-based system** – The core functions of CERF – including security and role-based access controls, data and metadata models, projects, notebooks, business policies, forms and templates – are all encoded declaratively using OWL (Web Ontology language) ontologies, enabling system changes without programming. Projects and Notebooks can also be imported/exported in XML.
- **CERF Development Kit** – This package puts the CERF Extensibility Framework in the hands of power users to tailor the system to meet the diverse needs of the organization. It includes a CERF Development Server license plus the Ontology Manager and the Integration Manager to create, edit, version, and install all of CERF’s OWL ontologies and components using form-based tools.
- **Ontology Manager** – This contains the CERF-DK tools for managing system resources such as data entry forms, project, document, and Notebook templates, scientific data & metadata models, hierarchically organized controlled vocabularies, annotations, user roles, and information processing workflows, as well as services and system components.
- **CERF Integration Manager** - This enables semantic integration of external and distributed data sources (SQL, XML, file systems) in the context of CERF projects and Notebooks with simple query forms for users that deliver results as HTML, spreadsheets, and other convenient formats.
- **Semantic Inference Engine** – CERF is built on the framework of a semantic metadata repository and scientific content management system with an inference engine so that users can discover certain relationships among data, find what they are looking for, and benefit from an intelligent electronic notebook system that helps researchers mine existing knowledge and expertise.
- **Automatic updates** – CERF 2.5 features component-based Java clients and servers with automated updating and hot-swapping of new components and versions to simplify management.

CERF 2.5 is available immediately with the optional CERF-DK that includes the Extensibility Framework tools, a development server, and Rescentris professional services and training.

About Rescentris

Rescentris provides electronic laboratory notebook and scientific content management software solutions for life sciences R&D organizations. Its cross-platform product, the Collaborative Electronic Research Framework™ (CERF), is built on information standards and ontologies to integrate informatics, electronic record-keeping, and knowledge management. Rescentris focuses on delivering “IT to improve the ROI of R&D™” – its solutions are designed to enhance productivity and decision making for scientists and R&D managers by capturing knowledge and intellectual property and disseminating it as unified and personalized views of enterprise discovery. CERF enables organizations to create, organize, share, and exploit their knowledge assets in a centralized platform while giving users an integrated desktop to do their daily work. Rescentris serves customers in diverse life sciences organizations, including biopharma and services companies as well as academic and government labs. See www.rescentris.com for more information.