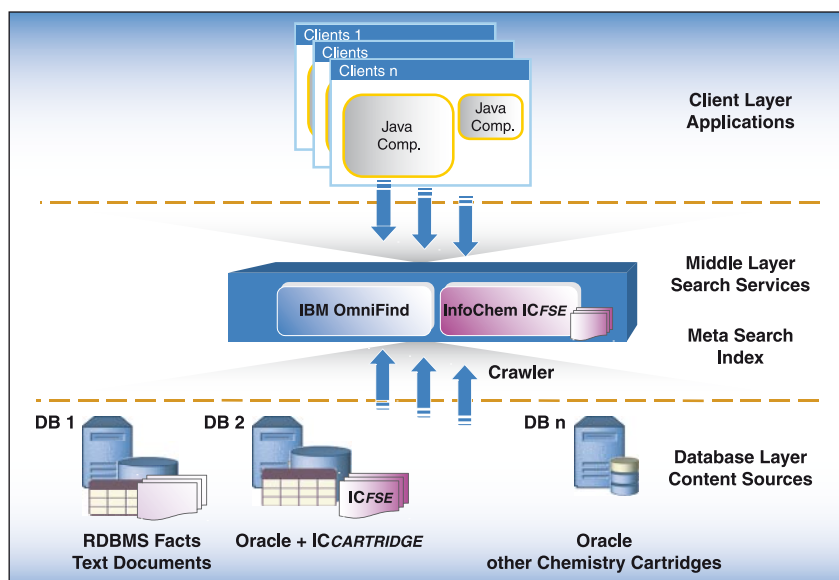


Integrated Search for the Life Science Industry

Combining InfoChem's structure/reaction search technologies (ICFSE and ICARTRIDGE) with Information Integrator OmniFind Edition from IBM



IBM and InfoChem have teamed together to offer an end-to-end solution that covers all aspects of integrated searching within an enterprise. The joint solution offers a unique integrated search capability leveraging the strength of both IBM and InfoChem technologies.

IBM WebSphere Information Integrator and OmniFind

IBM WebSphere Information Integrator software gives companies real-time, integrated access to business information – structured and unstructured, mainframe and distributed, public and private – across and beyond the enterprise.

It provides information integration middleware that offers a range of technologies – enterprise search, federation, transformation, data placement and data event publishing. All offerings are built on a common platform and easily integrated with industry-leading analytical tools, portal environments, messaging middleware and business process software.

IBM WebSphere Information Integrator OmniFind Edition provides extensive capabilities for searching diverse collections of business information from a single point of access. It delivers highly relevant search results with sub-second response times while scaling to millions of documents and thousands of users. Designed to integrate seamlessly into a company's environment OmniFind analyzes and

Highlights

- **Find the most relevant corporate information using high quality enterprise search functionality**
- **Combine searches for structured and unstructured information**
- **Use chemical structure and reaction information as search criteria**
- **Search all varieties of intra-corporate and external data repositories**
- **Deliver sub-second response times while scaling to millions of documents and thousands of users**

Accessing real-time information across the enterprise and beyond

The explosive growth of the Internet and e-business in recent years has caused a secondary explosion in the volumes and types of information available today. Many businesses have information spread across the entire enterprise, and find it difficult to search all these repositories consistently.

Beyond records and text, other data types such as chemical structures, MP3s, digital photos and call centre recordings have emerged as a primary driver for this information growth. Life Science Businesses must meet the challenge of finding, accessing, synchronizing, integrating and sharing this variety of information.

indexes information from throughout the enterprise. By simply entering a keyword or phrase, one can quickly search intranets, corporate public Web sites, relational database systems, file systems and content repositories.

The three major components of this search middleware are the crawlers, the index server and the search server.

The crawlers

gather data from a wide range of data sources and extract all relevant information, including metadata.

The index server

analyzes the documents and builds the index. It further processes the information to analyze the link structure for intranet content and to perform duplicate content removal. The index server is designed to scale to 20 million documents.

The search servers

are responsible for processing search requests, finding the most relevant documents in the index and returning the results in sub-second response times.

InfoChem IC_{CARTRIDGE}

InfoChem's Chemistry Cartridge for Oracle IC_{CARTRIDGE} is a powerful software package designed to integrate chemical structure and reaction retrieval into relational databases.

The application uses IC_{FSE}, InfoChem's high performance search engine to handle and search millions of structures and reactions.

Newly defined and specific SQL operators offer a variety of query features for searching chemical structures and reactions:

- *exact structure and reaction search*
- *molecule and reaction substructure search*
- *sophisticated chemical formula searching*
- *exact reaction searches for reactants and products*
- *reaction similarity search*

InfoChem Fast Search Engine IC_{FSE}

IC_{FSE} is a high performance chemistry search engine, which allows retrieval of data from millions of chemical structures and reactions within seconds, thanks to features such as:

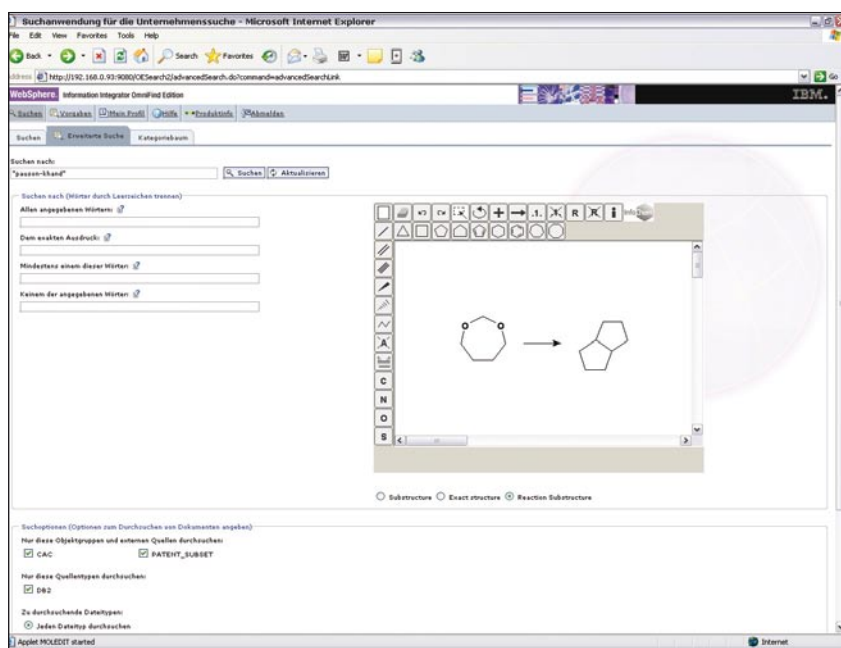
- *easy integration in any desktop or web application*
- *multiple platform support*
- *standard transfer file format processing (SD/RDfiles, SMILES)*

IC_{FSE} is a flexible product, which can solve performance problems by structure and reaction retrieval in any company environment.

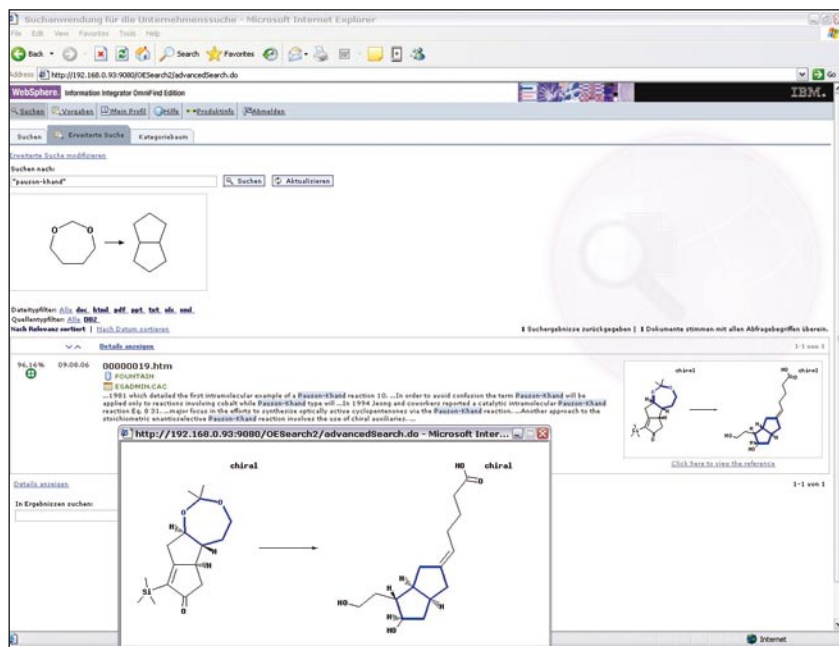
IC_{FSE} enables very fast structure and reaction retrieval in the web application SPRESI^{web}. IC_{FSE} is also integrated in IC_{CARTRIDGE}, providing outstanding search functions.

Leveraging the best of both worlds

- *IBM and InfoChem both have in-depth process experience and industry knowledge*
- *This unique solution with integrated search and retrieval capabilities will enable Pharma/Life Sciences and Chemical enterprises to more efficiently operate their business*
- *Access to relevant information from disparate internal, external and public domain sources will be possible via a single user-friendly interface*
- *The solution, which is built on proven high performance technologies, enables access to structured, unstructured and chemical structure information*
- *The solution will build on existing infrastructures and thereby secure previous investments in the application environment*



InfoChem structure editor IC_{EDIT} integrated in the OmniFind query page



OmniFind hit page with structure display and example of zoom window

IBM Global Business Services

With consultants and professional staff in more than 160 countries globally, IBM Global Business Services is the world's largest business consulting services organization. IBM Global Business Services provides clients with business process and industry expertise, a deep understanding of technology solutions that address specific industry issues, and the ability to design, build, and run those solutions in a way that delivers bottom-line business value.

IBM Software Group

IBM Software Group offers a wide range of middleware and operating systems for all types of computing platforms, helping customers to innovate their business and become more flexible, while making the most of current resources and controlling costs.

InfoChem

InfoChem GmbH (www.infochem.de), based in Munich, Germany, is a market leader in chemical structure and chemical reaction handling and retrieval. Founded in 1989, InfoChem focuses on the production and marketing of new chemical information products, including chemical structure and reaction databases, and the development of software tools required for these applications. The main software tools provided are the InfoChem Fast Search Engine (IC_{FSE}), the InfoChem Chemistry Cartridge for Oracle (IC_{CARTRIDGE}), reaction centre identification and the widely used InfoChem reaction classification algorithm CLASSIFY. In addition, InfoChem distributes one of the largest chemical structure and reaction files worldwide, currently containing structures of 5 million organic and organometallic compounds 4 million chemical reactions, covering the chemical literature published since 1974 (SPRESI). InfoChem's customers are large chemical and pharmaceutical companies as well as small high-potential start-ups worldwide. Springer-Verlag (Heidelberg) has held a majority interest in

InfoChem since 1991. Since September 2003, Springer-Verlag belongs to the investment group Cinven and Candover.



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