

UPSTREAM DEVELOPMENT

Web and software solutions for e-Business

Entry Title: Upstream Development, LLC – Knowledge Stream Application
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Product / component name and brief description (50 words maximum).

Knowledge Stream - A Web Service based performance centered knowledge management application with modules for performance support, training, collaboration, troubleshooting, information retrieval, data mining and on-line content administration.

Ideally suited for customers needing a collaborative solution for supporting customer self-service, and capturing and disseminating continuously updated and statistically application specific knowledge to customers, partners, and employees.

Vendor: Provide vendor name, address, phone, and, email. Indicate "same as above" if this is the case.

Same as above.

Operating Environment: (operating system, system resource requirements, if applicable).

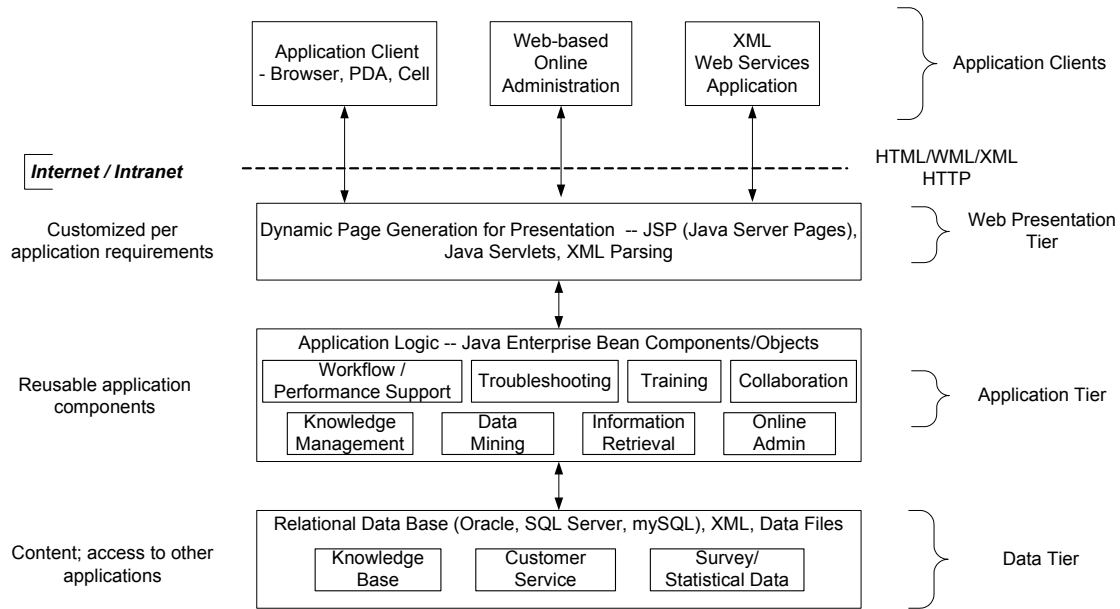
Typically deployed as a Web service application over the Internet and accessed through standard Web browsers.

Java 2 Enterprise Edition (J2EE) architecture provides a platform independent solution for supporting Internet or intranet web or wireless clients anytime, anywhere.

The application has been deployed on Unix and Windows servers, and distributed on CD-ROM for installation on Windows PC's. Prefer Web deployment to support collaboration and to provide the latest content.

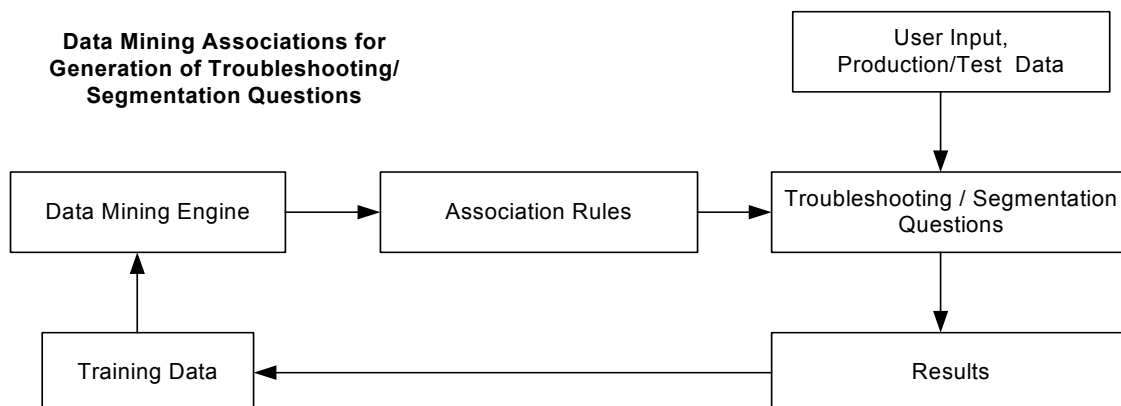
Product / component detailed description (maximum of 400 words):

Knowledge Stream Architecture



The Knowledge Stream application provides a platform for the rapid and cost-effective development of performance centered self-service and knowledge management applications through the use of reusable application components, and online administrative interfaces to manage, share, and mine application content.

Data mining technology has been added to mine product, customer service, troubleshooting, or any related database to find associations and statistically relevant correlations that can be used to improve performance support, and to automatically generate questions from associations for troubleshooting and segmenting user groups/issues.



Information retrieval technology has been added to integrate both structured (database) with unstructured (Acrobat, Word, text, etc.) when searching the knowledge base and providing support links to performance support and workflow procedures.

Knowledge Stream is a multi-tier Web Services application based on the Java 2 Enterprise Edition (J2EE™) architecture. Architecting the application into Web Presentation, Business/Application, and Data tiers facilitates reuse of application components and customization of any tier without affecting other tiers in the application. The separate Data Tier eases integration with other applications.

Java server-side technology provides a high-level of performance, modularity, scalability, and provides operating system, web server, database, and browser independence.

The Web Presentation Tier dynamically generates content for specific web, hand held, and web services clients from the application database. The Web Presentation Tier can be customized to meet specific customer user-interface requirements without affecting Application Tier components or the database.

Online administration tools provide access to all application content through standard Web browsers.

The Application Tier is based on reusable business components that provide application functionality:

- Workflow/Performance Support
- Knowledge Management
- Troubleshooting
- Training/Simulation
- Collaboration
- Information Retrieval / Search
- On-line Administration
- Data Mining

The Data-Tier consists of the customer database and components for integrating to other applications and content.

Product use: Who is using it and for what purpose(s) (maximum 400 words):

HRA – Health Risk Assessment

HRA is a health risk assessment tool developed for Medical Computing Tools, LLC that can be used by a patient directly or administered with the assistance of a clinician. HRA embodies the essence of performance support by guiding the user through a sequence of statistically relevant questions used to calculate a patient's risk profile. Since questions are consistent from one user group to another, and the risk statistics are calculated automatically, errors in administration and calculation of risk are eliminated. In addition, the risk profile can be done by individuals in private.

HRA uses new Knowledge Stream data mining technology to generate the health risk assessment questions from statistical disease databases for heart disease, breast cancer, and diabetes. A statistical risk profile is created for each user based on their responses.

Medical Computing Tools, LLC has added clinical feedback based on standards to help patients reduce their risk profile. Users can go back and modify their responses to see how adjustments in life style, diet, and exercise can reduce their risk profile.

www.upstreamdevelopment.com/hra

Emerson Electric – Micro Motion Expert2

Expert was originally a standard Web-based EPSS for supporting technicians and customer service representatives installing, configuring, and troubleshooting Micro Motion's line of Coriolis flow meter products for measuring fluids, gases, and slurries in industrial applications.

The success of the original application, customer demands for the latest content available, and Micro Motion's continually increasing number of products and solutions made it clear that Micro Motion needed a more sophisticated solution that was highly scaleable and provided tools for rapid integration of new content and multiple languages through collaboration, knowledge management, and online administration functionality..

The next release of Expert2 is using data mining technology for troubleshooting, and information retrieval technology to integrate both structured (database) with unstructured (Acrobat, Word, text, etc.) when searching the knowledge base and providing support links to performance support and workflow procedures.

Expert is now being used worldwide by Micro Motion customers, field service technicians, sales personnel, customer service staff, and trainers incorporating performance support as part of their technical training program.

In addition, Expert provides automated feedback to the Micro Motion's CRM system.

Johnson Controls – HVACPRO PSS

The HVACPRO PSS is a Web-based performance support application for assisting technicians using Johnson Controls configuration software for designing commercial building controls systems. The HVACPRO PSS assists technicians in the proper selection, configuration, and programming of building control components.

The training and simulation component allows technicians to rapidly and cost effectively test configurations.

The HVACPRO PSS has been incorporated into Johnson Controls training programs for training technicians, partners, and customers.

Deliverables provided to those using it (maximum 200 words) *plus a sample AND results achieved* (maximum 300 words):

Deliverables:

By using the Knowledge Stream multi-tier architecture and application components, a enterprise performance support and knowledge management solution can be delivered quickly at modest cost.

Data mining technology to develop troubleshooting procedures, improve performance support, and identify customer usage patterns.

Information retrieval technology for integrating both structured (database) with unstructured (Acrobat, Word, text, etc.) when searching the knowledge base and providing support links to performance support and workflow procedures.

Content specific to a user's application and equipment or procedure selections.

Web deployment of performance support and knowledge management provides the most up to date content and support anytime, anywhere to a worldwide customer base.

Collaboration, page notes, and knowledge management functionality provide continual feedback and improvement of performance support content and functionality, and enhance feedback from overseas customers and personnel. Online administrative interfaces eliminate bottlenecks in updating application content.

An efficient process for capturing and distributing subject matter expert content from a geographical disperse user base.

Results Achieved:

Medical Computing Tools is in the preliminary stages of using HRA, however early results have shown patients to be very receptive. Earlier tests have shown that patients answer questions more accurately (honestly) with a tool than they would when they are face-to-face with a hurried physician. In addition, it has been found that there is a wide variance in administration of medical histories used to develop risk profiles. HRA eliminates these problems.

Micro Motion only sends “quick start” guides with their equipment and refers customers to the Expert application. This is saving Micro Motion several million dollars per year in manual printing and shipping costs.

Knowledge management components have allowed Micro Motion to capture intellectual property of application experts nearing retirement and incorporate vital content in workflow and performance support.

Increased customer satisfaction is indicated through strong, very positive customer feedback and requests for additional functionality.

Customer service representatives are now able to spend more time per customer working on more difficult problems.

Application use has gone from an average of 600 per month in the original application to consistently over 6,000 using the Knowledge Stream deployment.

Johnson Controls is using the HVACPRO PSS to capture and disseminate application specific subject matter expertise, improve customer service, reduce training requirements, and reduce company travel.

What difference does your product / component make with respect to developing performance-centered elements (i.e. why we should care about it; maximum 300 words):

Many performance-centered applications have been developed as one-shot applications to provide a solution to a specific performance support task without an object-oriented approach for developing reusable components, without an integrated process for managing and updating content, and without a means to integrate content from other applications and data stores.

The Knowledge Stream application was designed to address these issues.

Knowledge Stream provides a platform independent enterprise solution for the rapid and cost-effective development of performance-centered applications through the use of reusable application components, and online administrative interfaces to manage and share application content.

Architecting the application into Web Presentation, Business/Application, and Data tiers facilitates reuse of application components and customization of any tier without affecting other tiers in the application.

The web presentation tier allows for easy development of application specific user interfaces that support browsers, PDA's, cell phones, and Web Service clients.

Standard reusable business/application components allow efficient integration of tested and proven functionality without reinventing the wheel with each application.

A separate data tier separates the application components from the database and provides a means to integrate other applications and data stores.

Describe anything else that contributes to this being an extraordinary entry (200 words maximum):

Users have the ability to add and share notes on any page in the application.

Online administrative functionality allows rapid and continual update of application content.

Content management functionality supports multiple languages.

Meta information is used with content to support context sensitive search.

Hyperlinks to glossary items are dynamically inserted into application content using custom component tags.

Fine granularity usage statistics are stored in a dimensional data warehouse table to identify how people use the application and to provide feedback for improvements and more better troubleshooting.

Data mining technology for developing troubleshooting procedures, improve performance support, and identify customer usage patterns.

Information retrieval technology for integrating both structured (database) with unstructured (Acrobat, Word, text, etc.) when content searching the knowledge base and providing support links to performance support and workflow procedures.

Provide a URL for judges to experience the PCD Tool in as concrete a manner as possible; e.g., supporting graphics, animation/AVI/Flash files, simulation, live system, etc.). If online access is restricted in any way, please provide six (6) logins and passwords:

Product home page:

Emerson Electric - Micro Motion Expert

www.expert2.com

Note: No login is required to use the application. Login is required to use notes, knowledge management, collaboration, and administrative tools. The 'Admin' link is located in the footer of the web page. Login: epss, password: flatiron3.

<http://www.upstreamdevelopment.com/knowledgestream.htm>

Notes: See the product home page for more specifics about the application.

Health Risk Assessment

<http://www.upstreamdevelopment.com/hra>

<http://www.upstreamdevelopment.com/smoke>

Note:

Hra requires you to register. You may use whatever name you would like, however age and gender is important for generating an accurate risk profile.

Smoke has guest logins for diabetes screening and smoking cessation.

Johnson Controls - HVACPRO Performance Support System

www.upstreamdevelopment.com/hvacpro

Note: You must login to use the application. You can use the guest login or Login: 'jay', password: 'admin'. This admin password is required to use the administrative tools.

All users can use the same passwords.

White paper:

<http://www.upstreamdevelopment.com/docs/knowledgestream.pdf>

Web Site:

www.upstreamdevelopment.com