

Understanding

Knowledge Management

KB Framework: the platform for your next knowledgebase

Knowledge Reservoir's KB Framework provides a technical and organizational infrastructure that lets you find, manage and use all of your existing data, information and knowledge—structured or unstructured—fast. No need to re-organize your database or documents; simply use your existing data sources and map them seamlessly into a knowledge base using KB Framework.

KB Framework provides the essential core framework for the deployment of any knowledge management project by supplying the necessary visualization templates and web services for deployment. Data can be presented in a completely customizable webpage format using text, tables, graphics or geo-spatial map interfaces. More complex pages can be provided using .NET presentation add-ons.

Workflow, decision and mind-map® support also provide the ability to include reasoning, flowchart, and guidance tools for structured knowledge delivery.

KB Framework consists of the following major components:

- Data Management – the core framework that finds and manages all your structured and unstructured data, information and knowledge.
- Visualization & Collaboration – web-based screen templates and communications tools provide the means for data to be displayed graphically and environments that allow for real-time collaboration between workers in remote locations.
- Geospatial – additional templates and tools provide complex map-based views, logic and calculations
- Applications – .NET provides the capability for add-ons within the overall framework to add custom functionality.



KB Framework lets you create a customized interface featuring text, tables and graphics from all of your existing data sources—structured or unstructured.



Why Do Clients Need KB Framework?

Because better access to knowledge means smarter decisions faster.

Like any large technical organization, you have a legacy of data, information, and knowledge that you've invested time and money in, and you need answers from it now. KB Framework helps you to get those answers now because it provides a way to process, organize, visualize and move data from multiple sources, painlessly, without errors or loss of integrity, and bring it together in a single secure completely customizable webpage view using a simple web browser, anytime, anywhere.

The Knowledge Reservoir Edge

Other companies may offer similar products and services. But Knowledge Reservoir's unique combination of geoscientists and engineers working hands-on to solve the geoscience and engineering problems, who also working closely with our information and computer professionals, gives us unique insights into the problems of data, information, and knowledge management—and its solution—for the upstream oil and gas industry and its unique issues. We know your business, your data and your problems. And we have solutions that work in the real world.

KB Framework Features

Data, information and document management:

- Web-based access to information enables “anywhere, anytime” access to your data.
- Extensible and flexible data connections grow dynamically via templates to include all of your data, structured and unstructured, now and in the future.
- Data can be structured within databases or folder hierarchies, or it may be unstructured in multiple locations. The data connection templates allow rapid organization and re-organization over time.
- Consolidation of all data sources and assurance of access to all relevant knowledge improves data re-use, reduces re-purchase of data, and increases confidence in the results.

Integration, security and add-on tools:

- Industry-standard .NET Web Service Architecture allows rapid addition of new web services and ensures future compatibility.
- Full .NET security model guarantees not only the integrity of all the information being managed, but also transparently manages authorization of end-users.

Built-in knowledgebase features:

- Full-text, database (“analog”) and map-based searches allow users to see all assets and data across the Framework, including a multiple map/text/diagrammatic interface that provides multiple “views” of an area of interest.
- The metadata catalog accesses any standard or unstructured data model, ensuring that no information is lost in transformation while maintaining all existing mappings. The catalog provides Framework-wide visibility of and rapid search throughout all data stored in applications, databases and data stores.

Built-in visualization features:

- Add-on viewers and services provide visualization of many types of information, including maps, databases, seismic data, well logs, reports and documents.
- Standard templates allow mixed tabular, graphical and map-based displays of data, documents, information and knowledge.

Advanced process, collaboration and workflow features:

- Workflow, decision and mind-map® support also allow the knowledgebase to provide alerts, business rule application, process tracking and technical analysis including KPI's.
- Collaboration tools can also provide virtual workrooms, discussion groups and community of excellence support.

Open Systems:

- Completely vendor-neutral design assures flexibility – KB Framework was developed to be totally compatible with all applications and databases. Its .NET architecture provides maximum interoperability as well as maximum future compatibility.
- Industry-standard Service-Oriented Architecture allows rapid addition of new services to provide new applications and displays.

Deployment: Knowledge Reservoir can deliver a knowledgebase project as a complete hosted ASP implementation from a totally turnkey website.

Example Deployments

These two deployments of actual Knowledge Reservoir knowledgebase projects were both developed using KB Framework. Some aspects of the project are similar, others quite different, showing the power of KB Framework to easily design consistency into an application and the flexibility to customize quickly and easily.

BP Non-Conventional Well Performance Issues Knowledgebase	Deepwater Gulf of Mexico Reservoir Performance Knowledgebase
Text, reports, diagrams and lessons learned included for non-conventional wells	Text, reports, diagrams, data, key performance indicators and lessons learned included for producing, new and sanctioned reservoirs in the Deepwater Gulf of Mexico.
Multiple views provided by geographical region, well listing, and related issues.	Multiple views provided by maps, geographical region, well listing, and related issues.
Multiple performance indicators from database	Multiple performance indicators from database in tabular format. KPI's dissected into statistics including scatter plots, histograms and P10-P50-P90 cumulative frequency charts.
Search by well number, location and issue; and analog search by indicators.	Search by name, text search and from map and analog search by technical indicators. Key analogs and key issues for the dataset developed by subject matter experts and published in summary hypertext report format.
Web display designed for the completions engineer, arranged by well lifecycle and technical issues.	Web display designed for the reservoir engineer, with a GIS look-and-feel.