



**The World Bank Group**

IBRD IDA IFC MIGA ICSID

### **Business Profile**

The World Bank Group's mission is to fight poverty and improve the living standards of people in the developing world. It is a development bank that provides loans, policy advice, technical assistance and knowledge sharing services to low and middle income countries to reduce poverty. The Bank promotes growth to create jobs and to empower poor people to take advantage of these opportunities

The World Bank is not a "bank" in the common sense, but is one of the United Nations' specialized agencies and is made up of 184 [member countries](#). These countries are jointly responsible for how the institution is financed and how its money is spent. Along with the rest of the development community, the World Bank centers its efforts on the reaching the Millennium Development Goals, agreed to by UN members in 2000 and aimed at sustainable poverty reduction.

#### *Business Profile:*

World Bank Group

President: James D Wolfenson

Composed of Five Organizations: IBRD, IDA, IFC, MIGA, ICSID

Headquarters: Washington DC

Established: July 1, 1944

Membership: 184 countries

Staff: 9,300 employees

### **Records Information System**

The IRIS (Integrated Records Information System) at the World Bank is the repository for all the banks official records, reports, communications and e-mails. The content of their information warehouse goes beyond documents and attributes about those documents to include audio and video clips as well. Typical information in this system includes official bank communications, mission statements, statistical information, bank reports that are hundreds of pages, pension and HR information.

### **Oracle at the World Bank**

Needing to give their consumers the ability to search a consolidated repository of information and giving each group the flexibility to build their search tailored to their own needs, IRIS has created a digital management system that combines document and content management. The IRIS program has created a system that has the ability to search the metadata or attributes of the information as well as the information itself.

The IRIS system is the third generation records management system. In this version, the World Bank needed to address a variety of issues caused by the previous systems, including scaling to accommodate a large user population around the world, maintaining real time indexes which were required to speed up the searches for information just entered into the system, and being able to tune the system for simultaneous reads and writes. The World Bank users' typical query included doing full text searches on the content and attributes and browse-capabilities. Typical queries to the system may look something like: show me all information in this country, this province and that has this text; or show me all information that has this author between these

dates and has this word in the title and contains this word. They found the previous systems had issues scaling and could be tuned for either reads or writes but not both.

The key for success for the World Bank was to be able to marry text and very rich attribute data, keep real time indexes, simultaneous reads and writes, and scale to a large population of users around the world. Oracle's database technology was chosen as a foundation for the World Bank IRIS system because of its world class leadership with respect to database scalability, availability, performance, flexibility, and security. The Oracle Text features have been employed because of its rich feature set; full-text searching, flexibility in storage, combining relational and non-relational queries, support for multi-lingual search applications, consolidating all their data holdings into a centralized location, and providing their users with the flexibility to implement search portals customized to their job functions.

The World Bank has implemented the Oracle Database as the main data store for all the attribute data associated with the content and has chosen to store pointers to the actual data on the file system using the URL data store capability within Oracle Text. Oracle Text provides the administrators of different groups at the World Bank, who query against IRIS, the flexibility to implement full-text and multi-lingual searching portals specific for their user needs. Users are not limited to only searching on the documents that are kept in IRIS, but are able to search against the extensive metadata kept by the World Bank. Other Oracle technologies play a key role in the IRIS system. Oracle Partitioning allows the World Bank to offer the performance of keeping text indexes up to date real time and query against the text and attribute data much more efficiently.

The World Bank currently stores 7 GB worth of attribute and profile information and 393 GB of indexes to allow for the flexibility in searching their users have asked for. They have indexed over 3 million documents that are made up of transactional data (7-8 pages) and reports (about 100 pages). This system grows by 50,000 – 60,000 documents per month. The system generates around 40 attributes per document, and most of those are automatic. The system performs nightly crawls the banks reference files and does ETL on data from the Peoplesoft, SAP and Lotus Notes systems. The IRIS system is up and running 24 hours a day since their users are stationed around the world. The system also runs a nightly on-line optimize job to defragment the indexes without affecting the user performance.

With IRIS, the World Bank is able to provide a service to their users, which is flexible enough to allow them to query and display the data in the way that they want. This is done using XML technology. The IRIS system can accept an XML input string and formulate the results in XML, which allows users to format the data in the way they want to see it returned. Customers performing a search on the World Bank main website are sent to a web page that allows them to search the entire repository, publications only, or on documents and reports only (Figure 1).

The screenshot shows the top navigation bar of the World Bank Group website with links for Home, About, Countries, Data, Evaluation, Learning, News, Projects, Publications, Research, and Topics. A search bar is located in the top right corner with a 'GO' button and a link to 'More Options'. Below the navigation bar is a banner image of a woman's face with the word 'Search' in large text. The main heading is 'World Bank Search'. A paragraph explains that the website provides searches within four main categories: all, publications, documents & reports, and projects (lending). It also mentions the JOLIS catalog. The page is divided into three sections, each with an icon and a search box:

- Search All**: Searches the entire web site of the World Bank as well as including links to related information in the publications, documents & reports, and project searches. Includes a search box and a 'GO' button. A link to 'Advanced Search' is provided.
- Search Publications**: Searches the titles in the catalog of publications available from the World Bank Office of the Publisher. Includes a search box and a 'GO' button. A link to 'Advanced Search' is provided with the text: 'search by title, author, ISBN, price range, SKU, or keyword.'
- Search Documents & Reports**: The Documents & Reports includes more than 14,000 project documents, working papers, country assistance strategies, and economic & sector work.

**Figure 1**

Users may also perform more advanced searches against their data. The advanced search functionality includes Boolean, exact and wildcard searches, section searching, searching by language, by date and numerous other attributes (Figure 2).

**Search Terms:**

**Document Title:**

**Collection Title:**

**Author:**

**Region/Country:\***

\* Hold 'Ctrl' key to select multiple choices

**Region/Country:\***

**Region/Country:\***

Africa Sub-Saharan (Region)  
 East Asia and Pacific (Region)  
 Europe and Central Asia (Region)  
 Latin America and Caribbean (Region)

**Sector:\***

Agriculture  
 Agency Reform  
 Agricultural Credit  
 Agricultural Extension

**Document Type / Series:\***

Analytical & Advisory Work  
 CAS Progress Report  
 CAS Public Information Note  
 Chairman's Concluding Remarks

**Language:**

Arabic  
 Bahasa (Indonesian)  
 Chinese  
 Dari

**Report Date:**   to  (yyyy/mm/dd)

**Numbers:** Report:  Loan:  Credit:

Project-ID:  Trust Fund:

**Sort By:**

**Display results in set of:**  20  50  100

**Figure 2**

Using Oracle's relational and text technology, the World Bank also creates a content location map that keeps track of all the versions and characteristics of the files in Oracle. This enables the World Bank to not only fulfill their end user requirements of searching their holdings, but also fulfill the needs of internal bank auditors who want to track documents associated with particular projects.