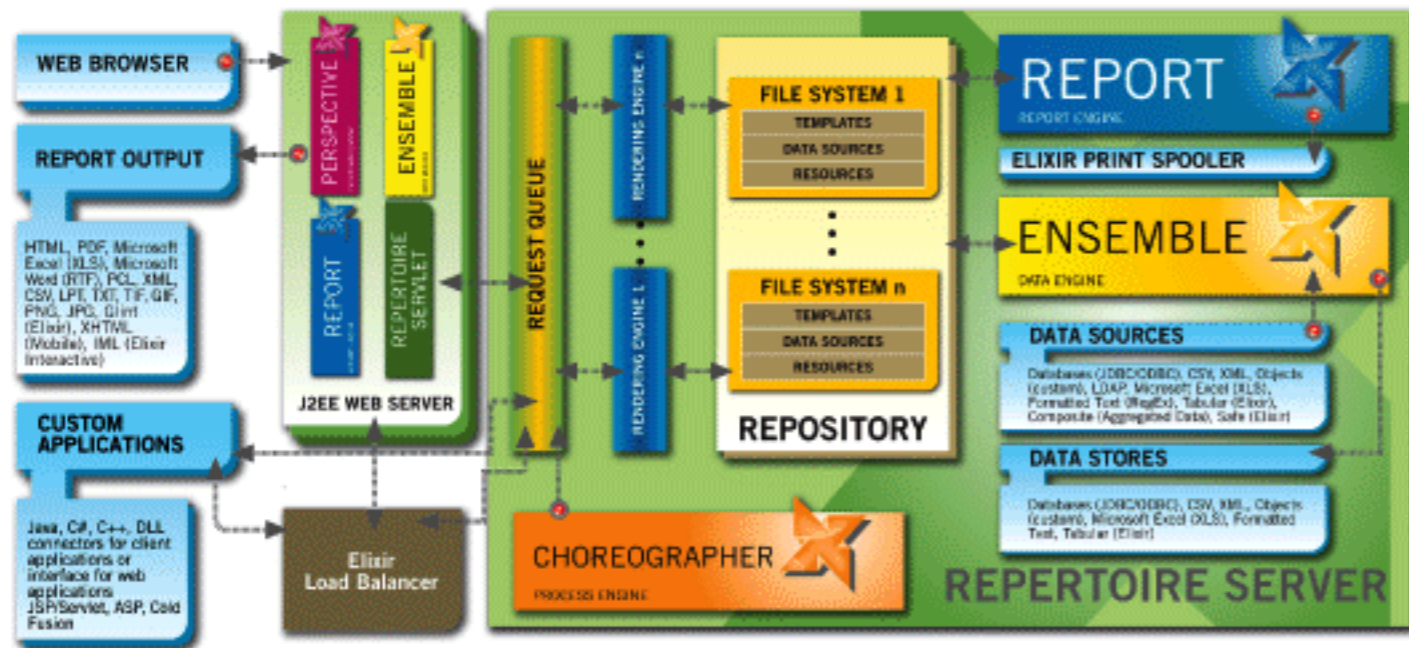


# Unified Business Intelligence Architecture



# ELIXIR ENSEMBLE

## Aggregation and Transformation

As data volume continues to grow exponentially, the demand for data in various personalized views and formats has also been growing in tandem.



Enterprises today need a powerful yet flexible data access solution to extract, aggregate, transform and load across multiple disparate data sources from databases, applications, as well as office documents. With business users quickly becoming more technically savvy, the data access bottleneck can be eliminated with an easy-to-use data extraction and transformation tool.

Elixir Ensemble™ is designed to provide on-demand, self-served data manipulation for business users as well as for automating enterprise level data processing needs. Its visual-modeling paradigm drastically reduces the time required to design, test and implement data extraction, aggregation and transformation - a critical process for any application processing, enterprise reporting and performance measurement, data mart or data warehousing initiatives. Ready for web-based deployment, Elixir Ensemble allows business users to quickly obtain the critical information for their business decisions and operational needs, freeing up the IT group to focus on enterprise level IT issues - the way it should have always been.

Elixir suite of products runs on a common underlying Elixir Repertoire Unified Architecture as follows:

- ETL and data aggregation with Elixir Ensemble, enterprise reporting with Elixir Report, information dashboard with Elixir Perspective, and scheduling and process activation with Elixir Choreographer.
- Each product layer can be enabled independently of another depending on the license key applied.
- Common repository with multiple options for localized personal access, compressed file for read-only, version controlled web-based sharing with WebDAV, and remote secured repository.
- Flexible parameterization and extensibility with custom JavaScript functions and import of external Java program.
- High performance, scalability, and availability with parallel processing of data and report generation, with add-on option of software load balancer.
- Automate data processing and report generation with triggers based on time, data, file folder, and logic, including invoking external program.
- Multiple deployment mode of embedded or standalone server with API connectors for Java, .NET DLL for C# and C++, as well as a web application (WAR) supporting URL interface which Elixir Perspective uses for dynamic dashboard rendering.

## Visual Data Extraction, Aggregation, Transformation & Loading



### Operating Requirements

### Supported Platforms

Windows, Solaris (including 10), AIX, Linux, Macintosh (including OS X) and any other Java SE version 1.4 and above compliant platforms.

### Systems Requirements

Minimum of 128MB RAM. Exact memory usage depends on operation requirements.

### License Editions

Elixir Ensemble Professional Edition includes the Ensemble designer for a single user to design data source and processing logic. It also comes with a built-in engine for ad hoc data processing at the user's machine.

Elixir Ensemble Server Edition extends the Professional Edition with server-side processing to perform centralized data transformation, delivering only the result sets to the client. A Web Application is included as an optional front end application.

### Benefits

- Accelerate Productivity with minimal learning curve where no programming or SQL is required
- Increase Flexibility with Visual Modeling Interface to easily create new data processing steps or to adapt existing ones
- Reduce Bottleneck with Self-Served End-User Data Extraction
- Empower Expert Users with Powerful Built-In Data Operations and Support for Custom Functions
- Eliminate Data Errors and Increase Efficiency by automating with Time, Data, and Logic Activation



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Corporate Email: [info@elixirtech.com](mailto:info@elixirtech.com)

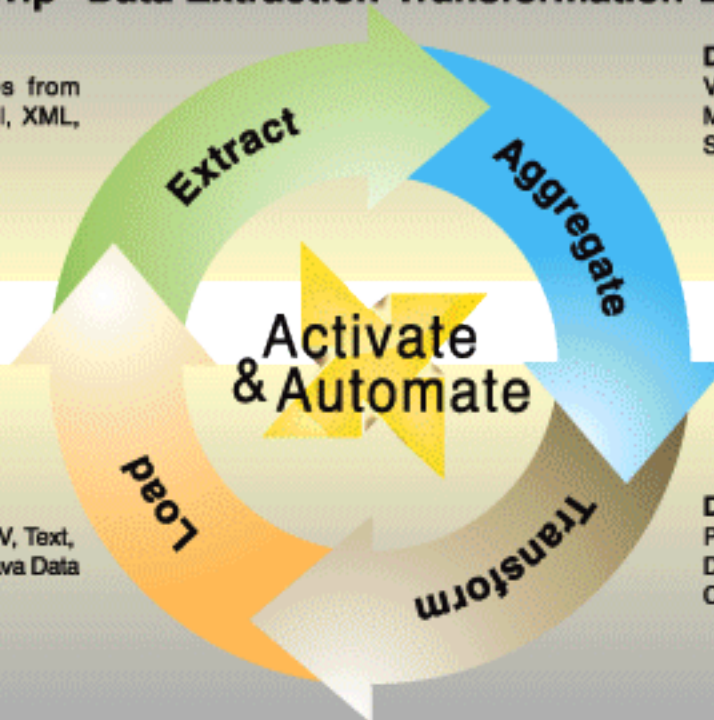
Website: <http://www.elixirtech.com>

# DATA LIFE CYCLE MANAGEMENT

## Design, Maintain and Automate "Round-Trip" Data Extraction-Transformation-Loading (ETL)

### Data Extraction

Multiple Data Sources from Databases, Text, Excel, XML, LDAP and Object



### Data Aggregation

Visual Data Aggregation across Multiple Heterogeneous Data Sources

### Data Loading

Store to Databases, CSV, Text, Excel, XML or Custom Java Data Store

### Data Transformation

Powerful Transformation with Derivative, Filtering, Cube, Cleansing, Sorting, and Scripting

## Powerful and Extensible Data Manipulation Functionality

### EXTRACT Multiple Data Sources from Databases, Text, Excel, XML, LDAP and Object

#### Relational Data Sources

- JDBC/ODBC for databases including Oracle, IBM DB2, SQL Server, Sybase, MySQL, Access, with **Query Builder** to graphically construct SQL statement with support for SQL variants
- Security** option for Read-Only, Hide Details, and Encryption.

#### Non-Relational Data Sources

- Direct Excel retrieval supporting **multi-sheets range and named range**
- Multi-lingual encoded Text** for CSV, Fixed Width, or **RegEx** for advanced text extraction, and **ARFF**, an ASCII format used in data mining
- XML** for XQuery/XPath support with Grouping of Subtree, **Object** for customizable access to Java Objects, EJB or JavaScript, and direct access to **LDAP** server

#### Auxiliary Data Sources

- Create internal data source with **Tabular** for small data set such as a code table, **Properties** for a single record, **Safe** for holding and transmitting encrypted data
- Reference**, as a proxy to another data source providing a preset parameter values
- FileSystem** to extract file attributes in a folder to be processed as records

### AGGREGATE Visual Data Aggregation across Multiple Heterogeneous Data Sources

#### Composite Data Sources

- Visual Modeling of Aggregation** with no SQL knowledge required, supporting mixing of different data source types
- Graphical layout of data model for **easy diagnostics and maintenance**

#### Join

- Join different types of data sources with options for **Inner, Outer, or Cross Join** for selected columns
- Resolve field name conflicts with Prefix

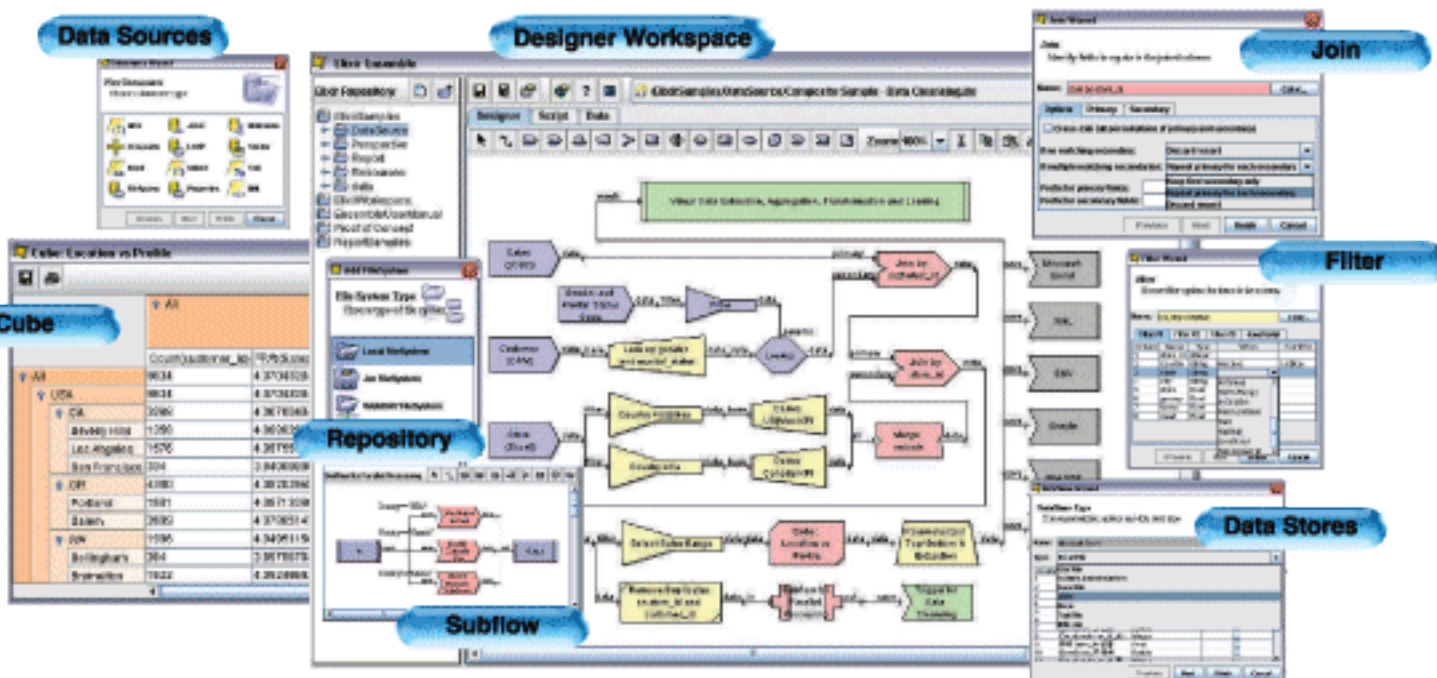
#### Concat

- Intersection or Union** for row merging

#### Cache

- Caching & Staging** control for optimizing data traffic and system resource utilization

## User-friendly Visual Interface



### TRANSFORM Powerful Transformation with Derivative, Filtering, Cube, Cleansing, Sorting, and Scripting

#### Derivative

- Transform schema to new field name or derive new fields with built-in or custom functions, with **Lookup** operator for populating parameterized values

#### Filtering

- Include range, look up from another data source, or JavaScript for complex filtering

#### Cube

- Built-in multi-dimensional Cube engine** with multi-measure support and user definable functions

#### Cleansing

- Split-Merge** mechanism for parallel Subflow processing, including operators for **Remove Duplicates** and **Invert Data**

#### Sorting

- Multi-Level** Sorting and Grouping for data preparation with **Top/Bottom N** Extraction

### LOAD Store to Databases, CSV, Text, Excel, XML or Custom Java Data Store

#### Data Store

- Load data to databases through JDBC/ODBC with options for creating new table, replacing or updating existing table by appending records, or record update
- Export to Excel with **multi-sheet option** based on data grouping
- Output to CSV with user-configurable separator and append option and **advanced Text** output with group header and body configuration for generating custom formats
- Custom Java DataStore** for custom output or interface with other applications
- XML output with **XSLT Transformation** option

#### DataDrop

- Generate to **Multiple Output Targets**, in parallel if combined with Subflow