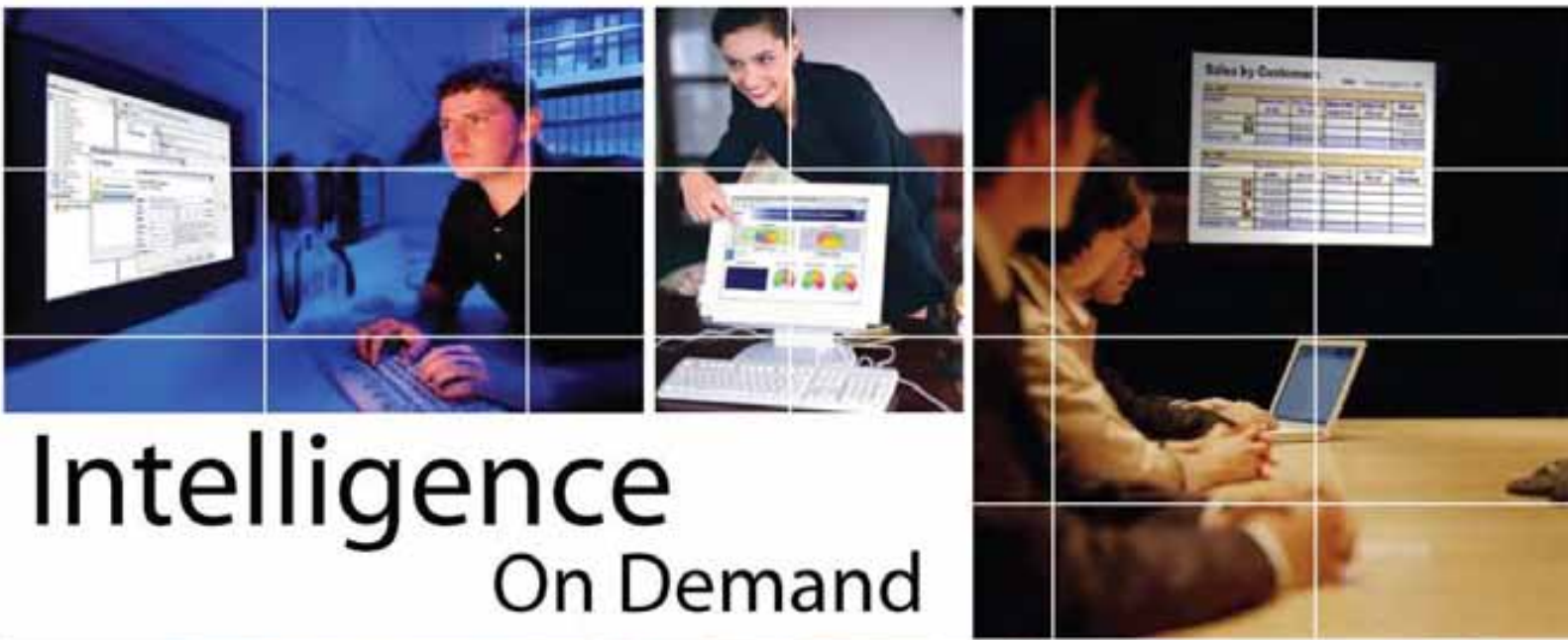




# ELIXIR REPERTOIRE

*Integrated Business Intelligence Suite*



## Intelligence On Demand



Elixir Repertoire  
Enabling Intelligent Enterprise

Whitepaper

## Product Overview

**Elixir Repertoire**, an integrated enterprise Business Intelligence (BI) suite, is ideally suited for providing holistic business views, ensuring optimal process and resource planning as well as service delivery management. The suite consists of four major components, i.e. Elixir Perspective, Elixir Report, Elixir Ensemble and Elixir Choreographer.

**Elixir Perspective**, the dashboard component, empowers business decision makers to easily design flexible dashboards, consolidating critical information for performance monitoring and trend analysis.

**Elixir Report**, the reporting component, delivers seamlessly integrated enterprise reporting via dynamic and analytical report generation.

**Elixir Ensemble**, the data component, aggregates and transforms disparate data from multiple sources to give the “full picture”.

**Elixir Choreographer**, the activation component, controls data and report generation triggers based on a variety of factors including time, calendar events, system folder contents, and data source records, with an option to launch external programs.

## The Elixir Benefit

Users of Business Intelligence typically fall into three broad categories, namely end users, power users and data analysts. This white paper illustrates how Elixir Repertoire fulfills business needs in each category.

## End Users

End Users are people who are not technical in training but may possess significant business impact responsibilities in corporations. Managers, planners and business analysts are good examples of this category.

## Personalized Dashboard Views

End Users demand personalized dashboard views. With Elixir Perspective, dashboard views can be customized for personal or departmental use with strict access controls to the underlying data. Once deployed to the unified Elixir Repertoire Server, Single-Sign On (SSO) is automatically available to allow managers of different departments or teams to view performance data restricted to their own area.

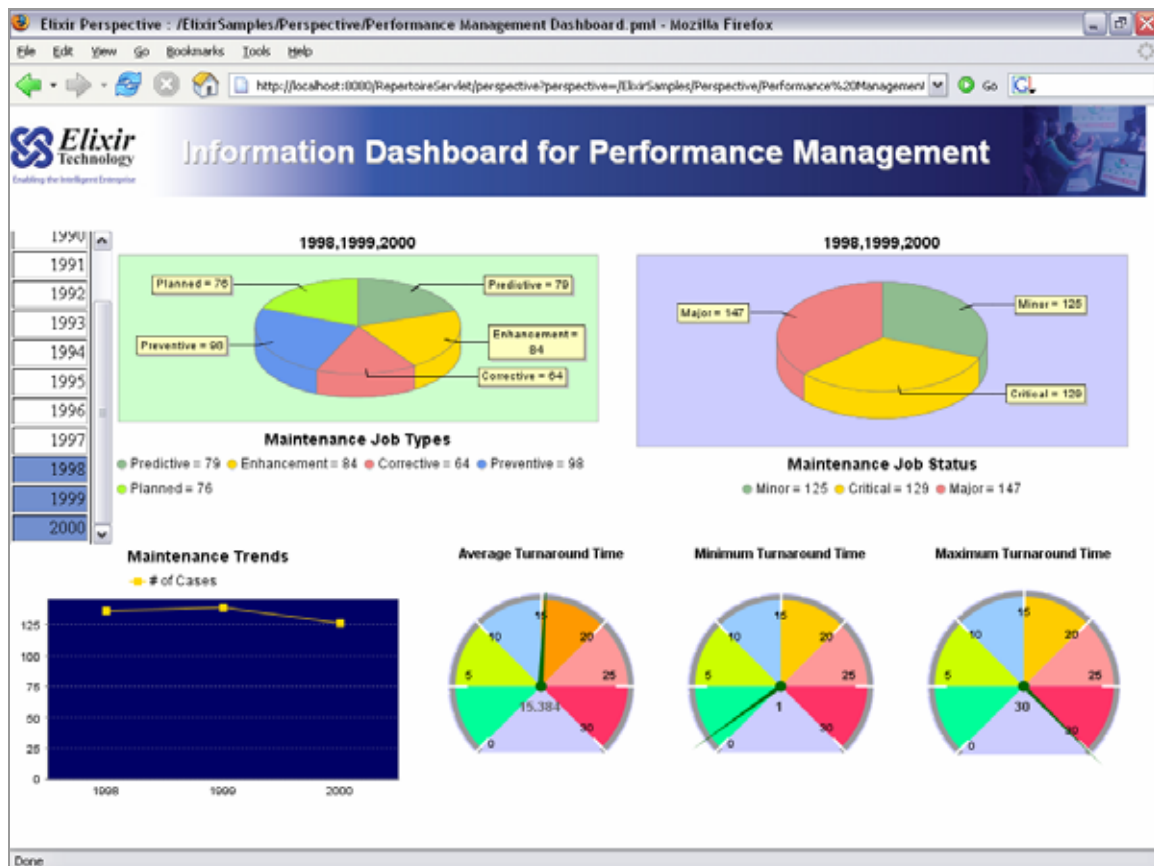


Figure 1. Management Dashboard for Performance Monitoring

## Navigation Control between Views

Cross-navigation among transactional data, cube summaries, and formatted reports provides end users with a dashboard view for instant access to insights into business operations. Combinations of Table, Cube, Chart, and Report View laid out on a Card visualize data with a granularity of choice. Cards are then linked by Actions, e.g. a mouse click, to views for navigation control.

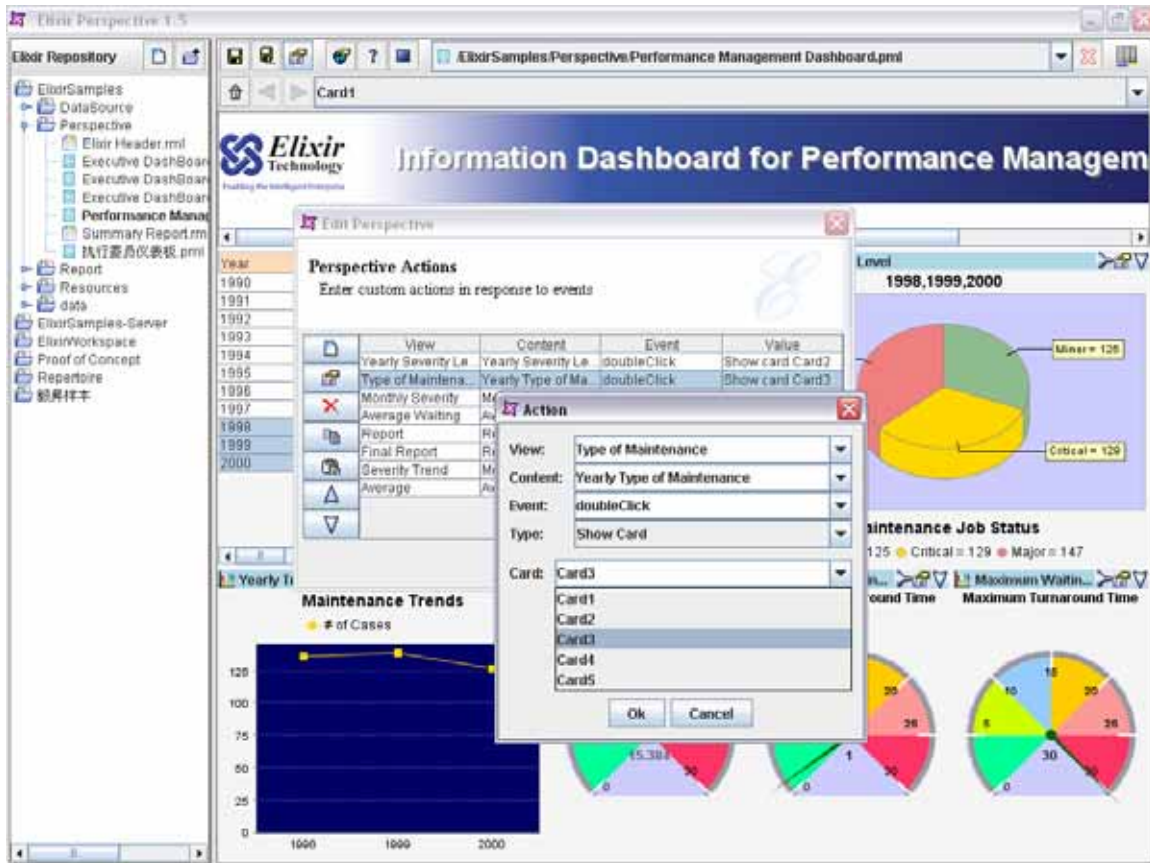


Figure 2. Attach Action to View and Content to Show Cards

## Visual Alert with Automatic Refresh

Thresholds can be pre-defined to provide visual alerts of operational status for business activity monitoring. Auto-update cycles can be set for periodic refresh of live status.

## Multiple Output Formats

Multiple output formats including PDF, CSV, Microsoft Word, Microsoft Excel and XML are supported for dynamic report generation. Similarly, data extraction can be triggered to export only selected items. Essentially from the same dashboard session, dashboard users are able to generate reports and extract data based on the various "drill path" by specifying selection criteria.

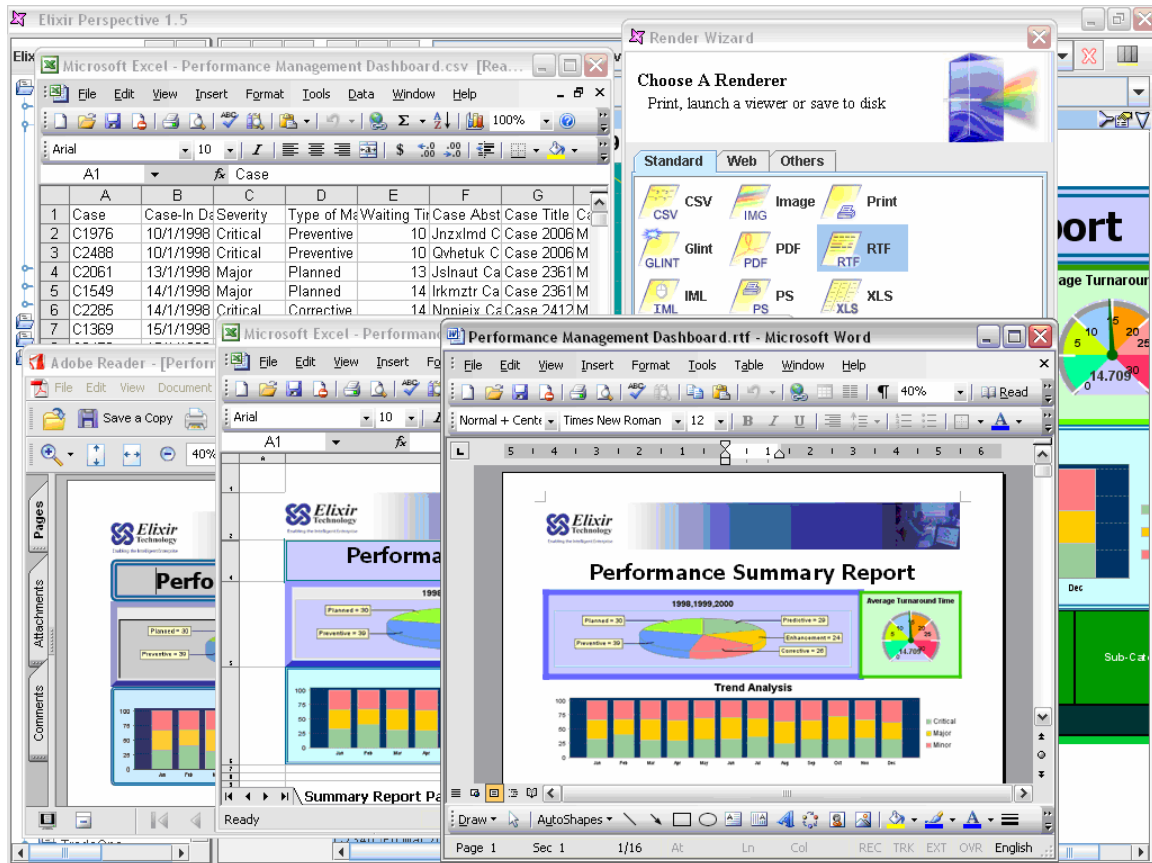


Figure 3. Self-Served Data Extraction and Report Generation

## Power Users

Power users are functional specialists who are able to master a professional tool and apply it to the business problems at hand. Report experts and system administrators are good examples of this category.

## Comprehensive Reporting Functionalities

Elixir's proven reporting component ensures accessibility of data presented in a professionally looking layout. Since the introduction of version 1.0 in 1999, Elixir Report has grown significantly in functionality and garnered over 600 customers worldwide, including world-famous companies like Walt Disney, Cisco Systems, and Motorola.

The report designer comes with a broad range of functionalities to accommodate virtually any report layout. A rich set of report elements with CSS (Cascading Style Sheet) support are available out-of-the-box:

- Standard 2D barcode
- Open standard SVG (Scalable Vector Graphics) with animation support for high resolution vector graphics
- Business charts with 3D graphics
- Form-like layout with auto-resizing boxes, border control, color transparency, and external callback for capturing a snapshot of an HTML page

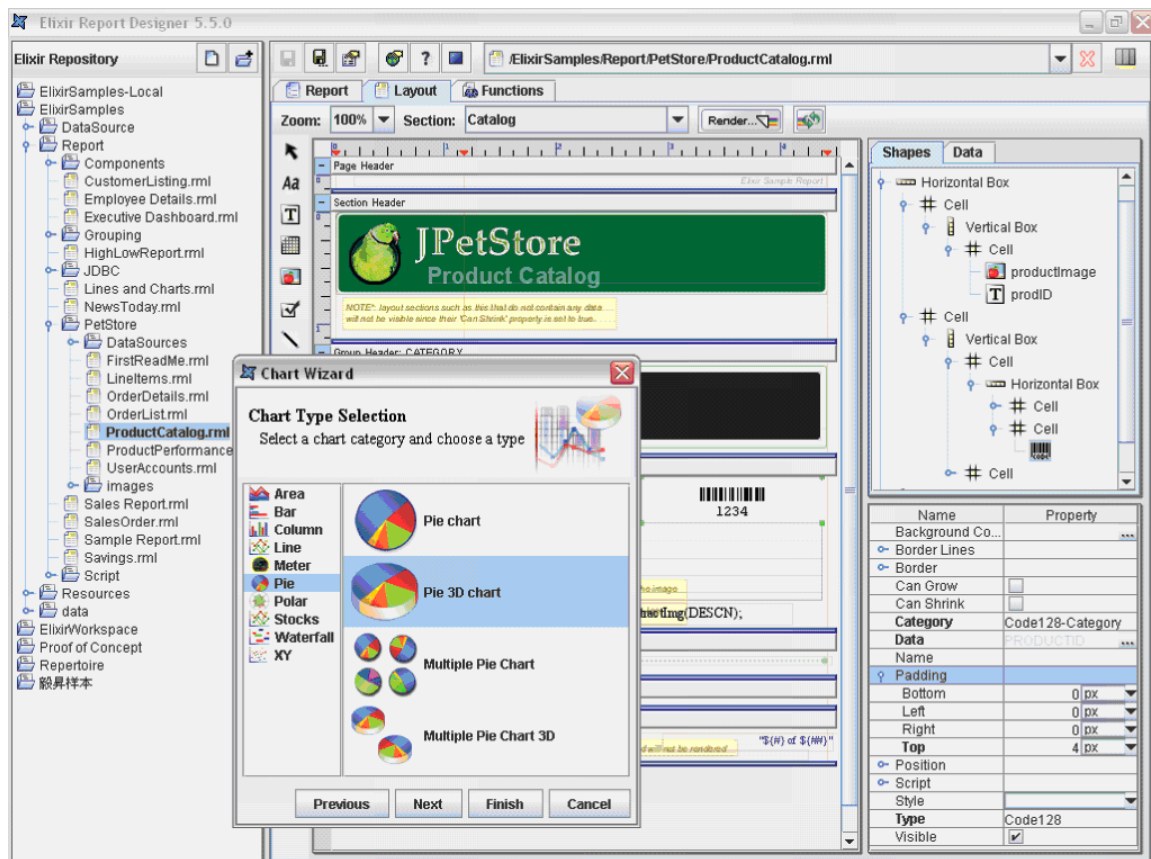


Figure 4. Graph Elements and Intuitive Report Layout Control

## Flexible Report Templating

Creating complex reports sometimes requires strong underlying structure support. Elixir Report comes with a flexible report template structure:

- Multi-section report with mixed orientation or page layout
- Wide spanning reports with multi-page templates
- Mailing labels with multiple column layout
- Unlimited number and levels of sub-reports
- Cube table for dynamic column
- Watermark with dynamic content using another report template
- JavaScript for powerful conditional rendering

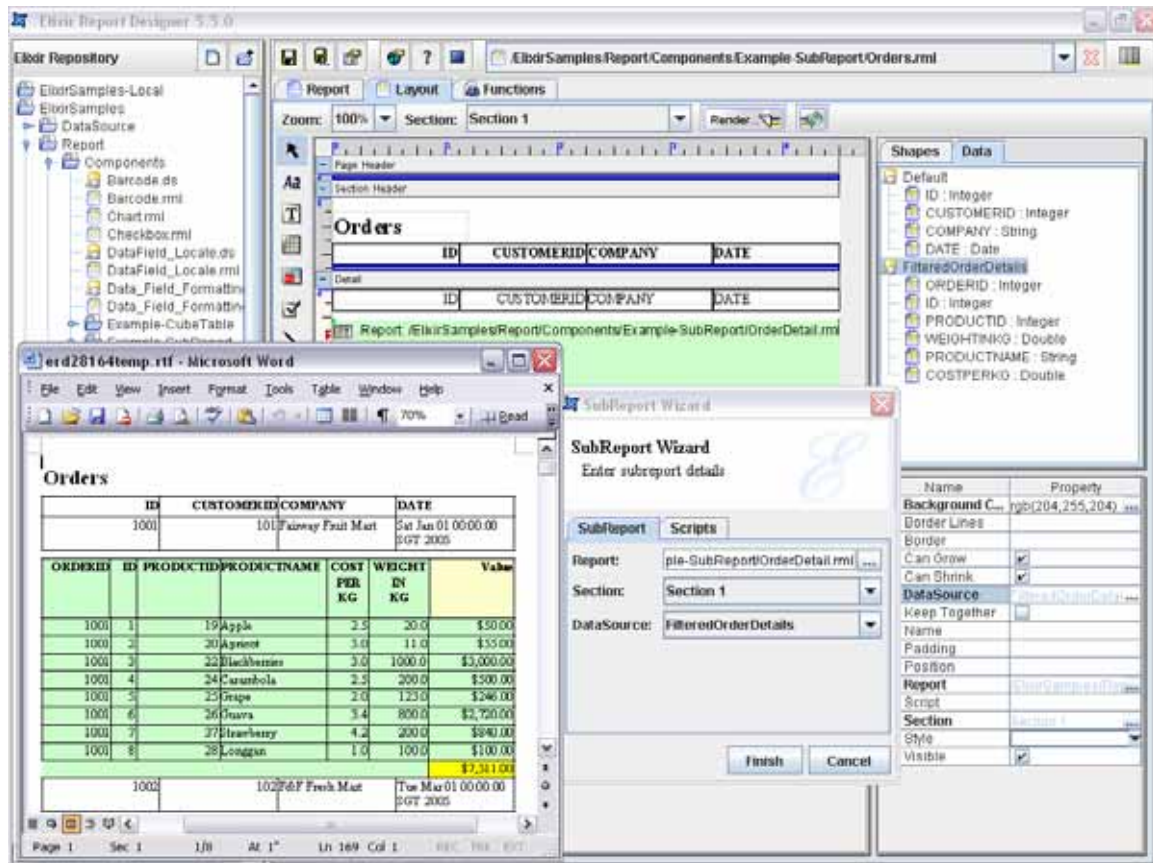


Figure 5. Sub-Reporting for Master-Details

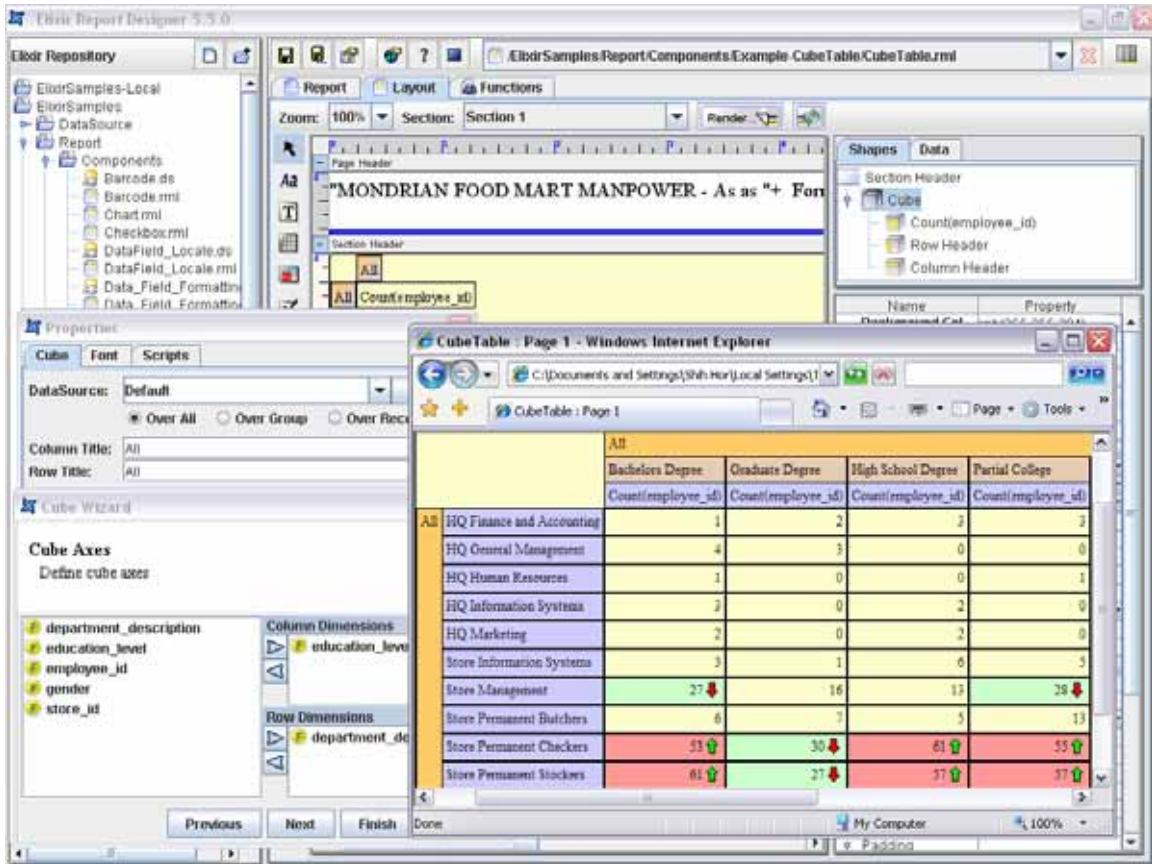


Figure 6. Cube Table with Highlighting



## Report Delivery

For efficient delivery of information, reports can be scheduled or generated on demand through web invocation or direct server invocation. Elixir Choreographer provides a powerful interval-based scheduler as well as a CRON trigger for extra intelligence like “last weekday of every 2 months”. Its high performance and scalable architecture for parallel report generation is specially designed to handle high volume usage scenarios.

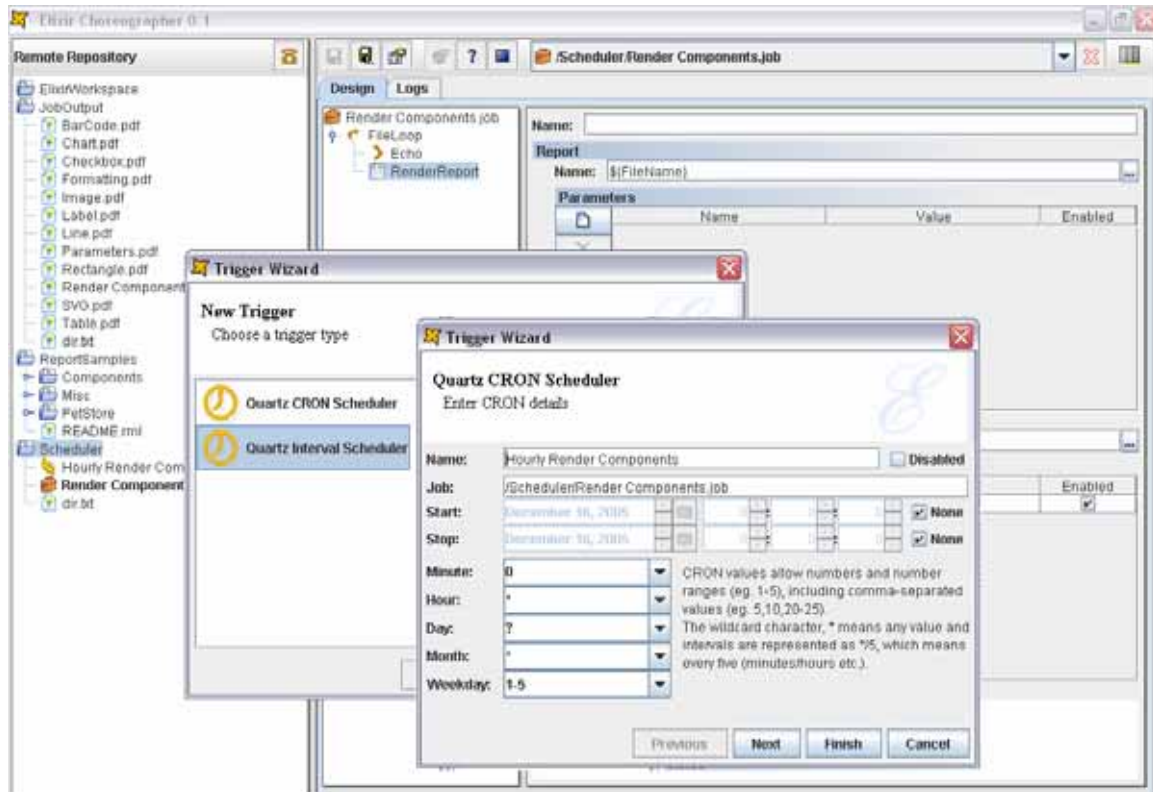


Figure 7. Activation and Automation of Report Generation

## Handling Complex Data Requirements

Going beyond the conventional reporting feature set, Elixir Report leverages the built-in data aggregation and transformation engine for complex data processing, e.g. cube transformation and data cleansing. This allows complex data logic to be defined separately from the template, facilitating easy maintenance and improved efficiency through logic reuse. With Elixir, report views and data logic are cleanly separated.

## Internationalization

Incorporating advanced internationalization support, Elixir Report pushes the envelope to help enterprises tapping into the increasingly flat world. East Asian languages and bi-directional languages are no longer a headache in report design.

## Dynamic Report Parameters

Pre-built report templates and data sources can be made available for end users to generate their own reports or extract data by simply selecting the criteria to pass in as parameters.

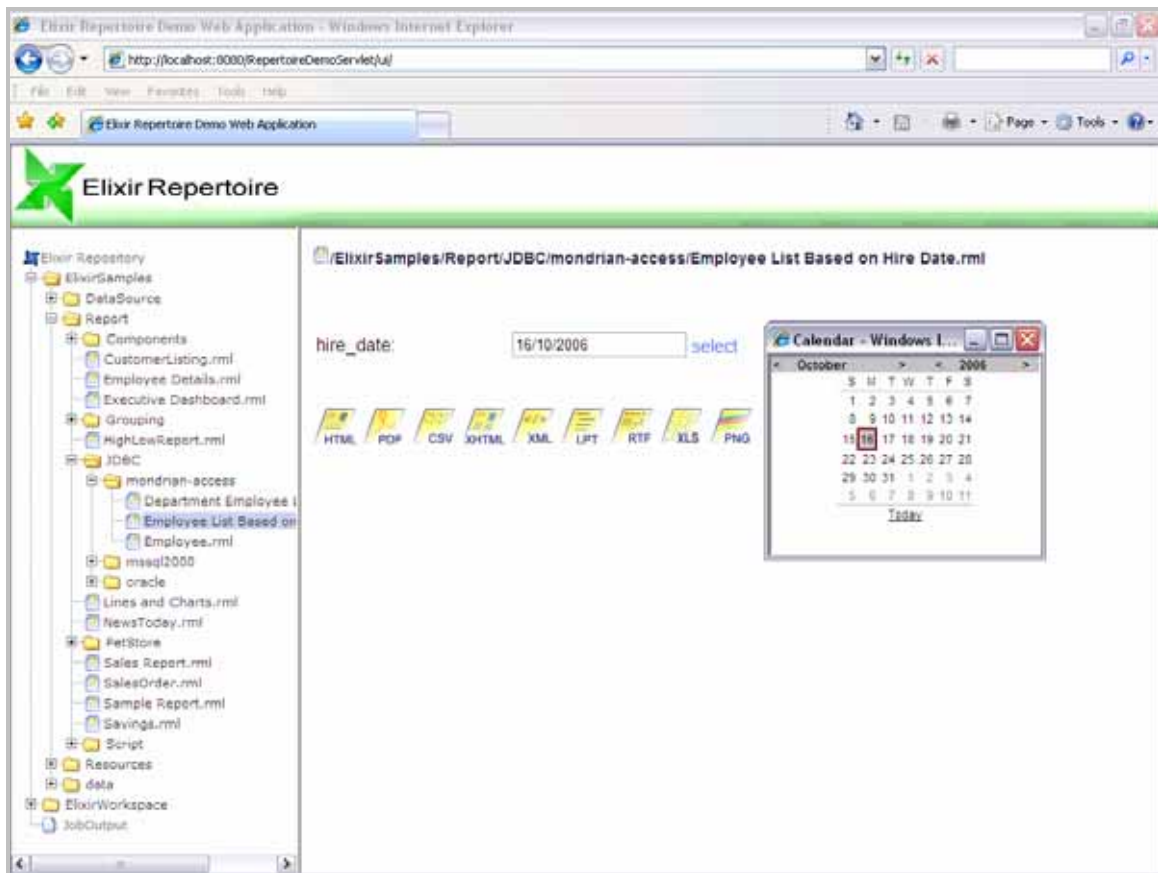


Figure 8. Generating Report and Data with Pre-Defined Templates

## Report Output Formats

Elixir Report supports a wide range of report output options for web/conventional files, printer, and mobile reporting.

Output Mode	Output Options
Web/conventional files	<ul style="list-style-type: none"> <li>HTML with drilldown</li> <li>PDF with encryption</li> <li>Excel document</li> <li>RTF document</li> <li>SVG</li> <li>Elixir Interactive Format</li> </ul>
Printer	<ul style="list-style-type: none"> <li>Multi-target print spooling</li> <li>Remote client printing</li> <li>PostScript, LPT, PCL and TIFF</li> </ul>
Mobile	<ul style="list-style-type: none"> <li>Mobile compliant XHTML drilldown reports</li> </ul>

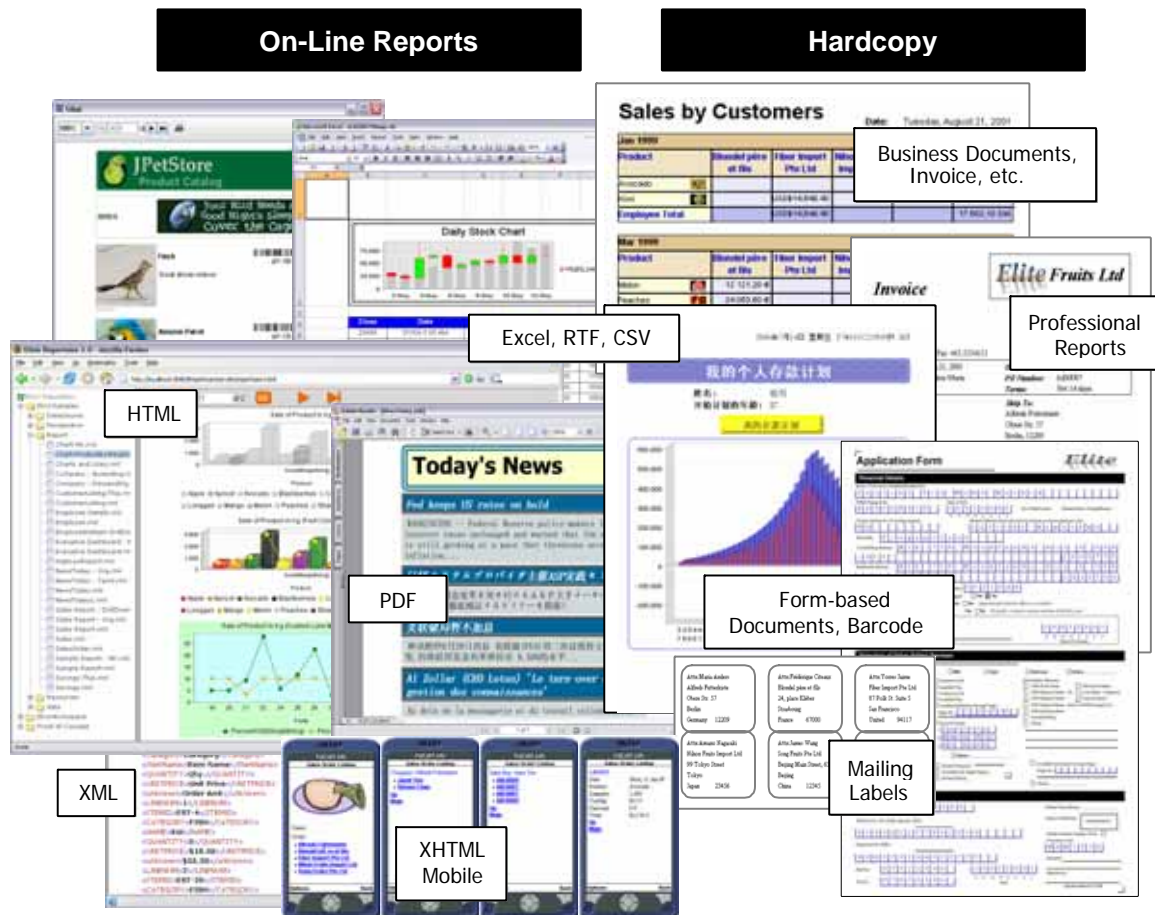


Figure 9. Wide Range of Report Output Options

## Report Wizard

Visual step-by-step wizards are provided for simple report creation. Similarly, data sources can be pre-designed for further customization or created directly from a visual view of the database schema, which can then be bound to a report for report generation on an ad-hoc basis. Parameters can then be inserted in any field in data sources or report templates.

Subsequently, users can save new or modified templates into designated folders for file system sharing or web based publishing. Templates can also be dropped into a pre-defined folder for scheduled report generation.

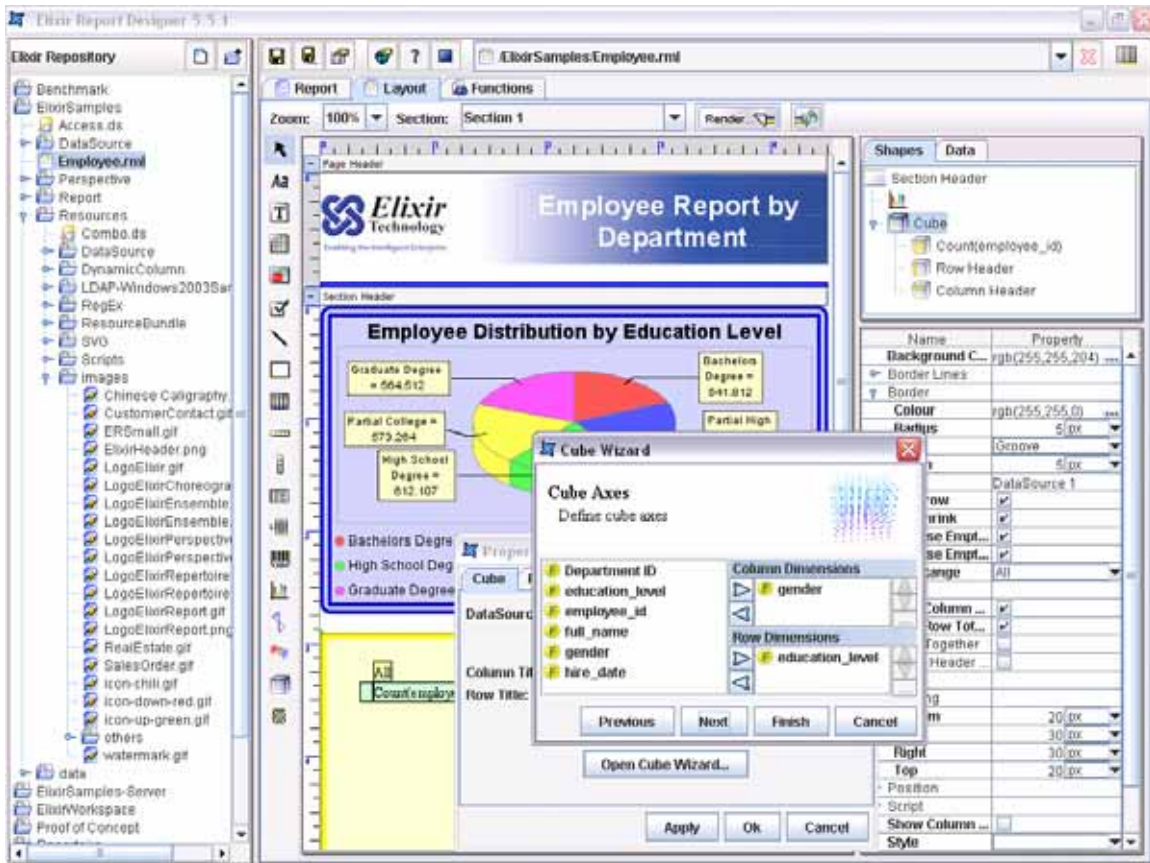


Figure 10. Wizards for Creating Report Template and Report Element

## Data Analysts

Data analysts are statisticians or IT persons with significant skills for producing complex analytical reports. They are responsible for extracting most values out of business analytics software.

## Visual Data Designer

Complex analysis must start out with a powerful data extraction and aggregation engine to ensure any required data source can be readily processed. Powerful transformation with visual editing for business agility is thus of paramount importance. In the new millennium business conditions frequently undergo rapid changes due to constant flux in business landscape. Hard coded business logic will almost always produce “instant legacy” solutions by the time they are delivered. In contrast to cryptic SQL or stored procedure programming, capturing and editing data logic in a graphical form ensures maximum flexibility and adaptability.

In this regard, Elixir provides a data designer tool, Elixir Ensemble, for creation and manipulation of data. Raw data can be extracted from multiple sources, transformed in cubes for multi-dimensional analysis with data cleansing and filtering, and loaded into designated data warehouse. Furthermore, it allows direct interaction with the data flow through a diagrammatic interface, saving a large amount of time while helping to formulate data manipulation strategies.

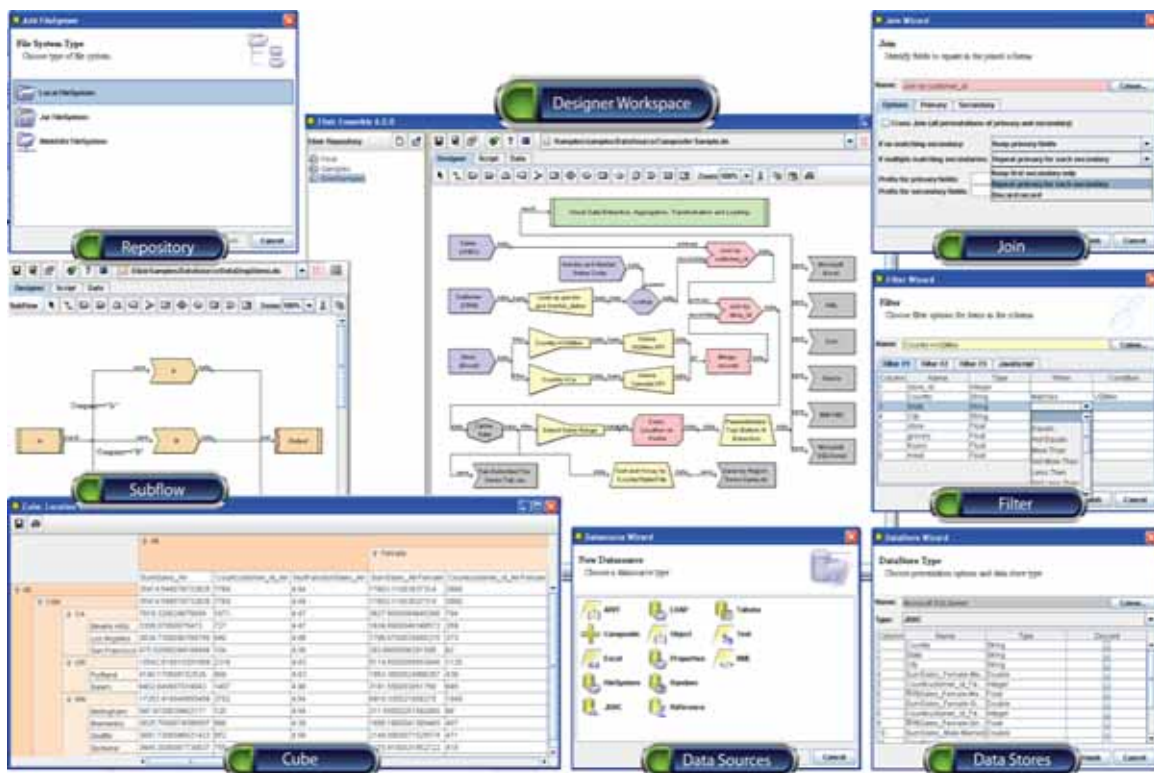


Figure 11. Data Aggregation and Transformation with Elixir Ensemble

## Aggregating Data from Multiple, Disparate Sources

It is not uncommon that for a thorough analysis, disparate data sources are involved. In addition to database queries, Elixir Ensemble supports multiple extraction mechanisms from non-relational data source such as direct Microsoft Excel retrieval with multi-sheet range and named range, Regular Expression (RegEx) for advanced text extraction, and Filesystem schema for native OS file systems.

There is also support for hierarchical data sources like XML with full XPath capability, Java, EJB or JavaScript objects, and LDAP (Lightweight Directory Access Protocol) server. Moreover, auxiliary data sources for convenient data access are part of the built-in data source options, e.g. Tabular data source for small data set such as a code table, Reference data source serving as a proxy to another data source with a pre-defined parameter value set, and Random data source for simulation purposes.

<b>Visual Data Aggregation across Multiple Heterogeneous Data Sources</b>	
<b>Composite Data Sources</b>	<ul style="list-style-type: none"> <li>• Visual data modeling with no prior SQL knowledge requirement, supporting mixing of different data source types</li> <li>• Graphical layout of data model for easy diagnostics and maintenance</li> </ul>
<b>Join</b>	<ul style="list-style-type: none"> <li>• Data source joins with options for Inner, Outer, or Cross Join for selected columns</li> <li>• Field name conflict resolution with user-defined prefixes</li> </ul>
<b>Concat</b>	<ul style="list-style-type: none"> <li>• Intersection or Union for row merging</li> </ul>
<b>Cache</b>	<ul style="list-style-type: none"> <li>• Caching &amp; Staging control for data traffic optimization and system resource utilization</li> </ul>
<b>Powerful Transformation with Derivative, Filtering, Cube, Cleansing, Sorting, and Scripting</b>	
<b>Derivative</b>	<ul style="list-style-type: none"> <li>• Derivation of new fields with built-in or custom functions as part of the data transformation process, with Lookup operator for populating parameterized values</li> </ul>
<b>Filtering</b>	<ul style="list-style-type: none"> <li>• Complex filtering with range, data source lookup, or JavaScript</li> </ul>
<b>Cube</b>	<ul style="list-style-type: none"> <li>• Built-in multi-dimensional Cube engine with multi-measure support and user definable functions</li> </ul>
<b>Cleansing</b>	<ul style="list-style-type: none"> <li>• Split-Merge mechanism for parallel sub-flow processing, including operators for duplicates removal and data inversion</li> </ul>
<b>Sorting</b>	<ul style="list-style-type: none"> <li>• Multi-Level sorting and grouping for data preparation with Top/Bottom N Extraction</li> </ul>
<b>Persistence to Databases, CSV, Text, Excel, XML or Custom Java Data Store</b>	
<b>Data Store</b>	<ul style="list-style-type: none"> <li>• Load data into databases through JDBC/ODBC with options for creating new table, replacing or updating existing table by appending records, and record update</li> <li>• Export to Excel with multi-sheet option based on data grouping</li> <li>• Output to CSV with configurable separator and append option, together with advanced Text output with group header and body configuration for custom format generation</li> <li>• Custom Java Data Store for output or interfacing with other applications</li> <li>• XML output with XSLT Transformation</li> </ul>
<b>DataDrop</b>	<ul style="list-style-type: none"> <li>• Output to multiple output targets, processed in parallel if combined with sub-flow</li> </ul>

**Figure 12. Listing of Data Transformation Functions**

## Dynamic Data Presentation with Dashboard

After data sources are created, analysts can then use the self-served dashboard inside Elixir Perspective to create analysis templates for visualizing data using Table, Chart, and Cube, supplemented by professionally crafted reports from Elixir Report.

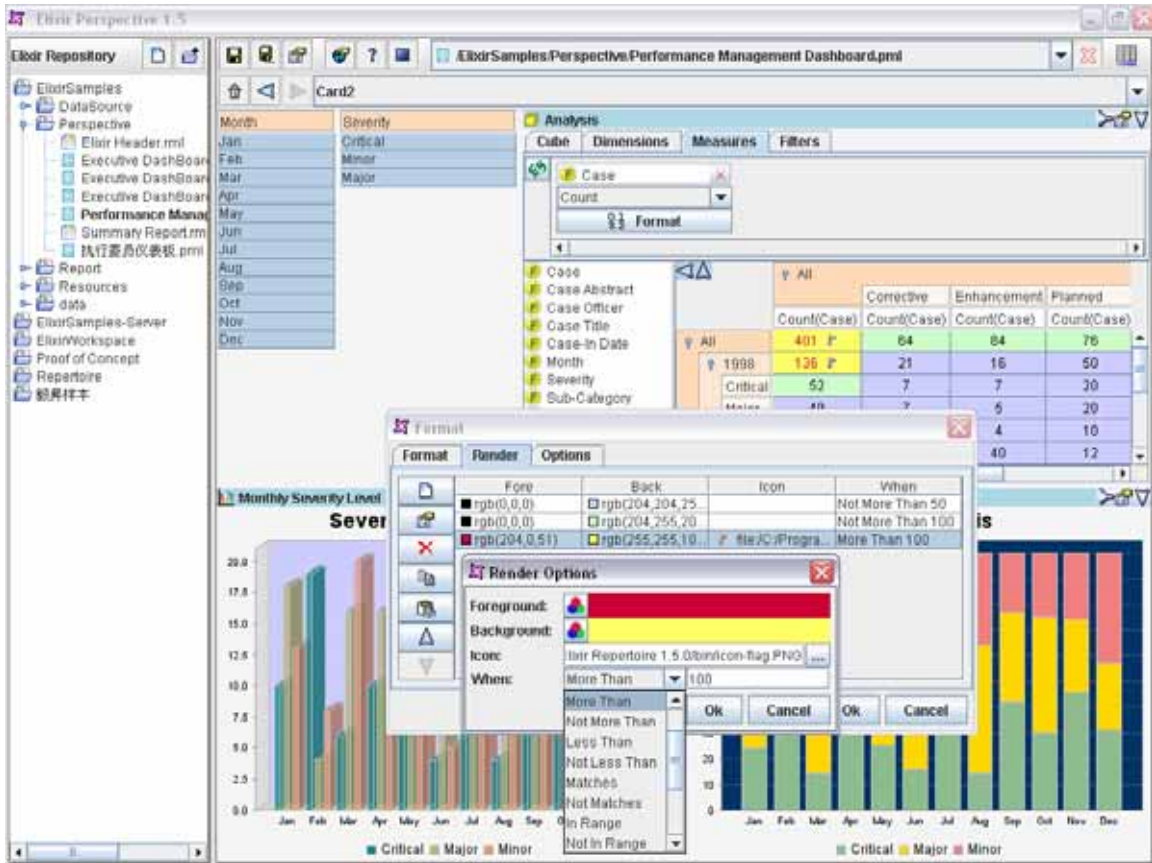


Figure 13. Interactive Cube View with Conditional Highlighting

## Summary

Elixir Repertoire offers a wide array of functionalities for maximum business impact, while leveraging Java Standard & Enterprise Edition for cross-platform compatibility. Satisfied customers worldwide rely on Elixir Repertoire to improve operations efficiency as well as increase corporate profitability.

For additional information, please contact Elixir sales team at [sales@elixirtech.com](mailto:sales@elixirtech.com).

## About Elixir Technology Pte Ltd

Elixir Technology provides a Unified Business Intelligence Platform for end-to-end information life cycle coverage from Extraction-Transformation-Loading (ETL), Data Aggregation, Cube, Reporting, Dashboard and Activation. Our flagship product, Elixir Report, has garnered over 600 customers across 50 countries in various verticals such as government, financial services, telecommunications, healthcare, retail, and technology. Going beyond enterprise reporting needs, our Integrated Business Intelligence Suite, Elixir Repertoire, is designed to further empower our customers toward becoming intelligent enterprises, where critical information is readily available to drive decisions and actions. Elixir Technology is headquartered in Singapore, with an R&D arm in UK. Through a network of partners, Elixir's products are represented in many parts of the world across major continents including Asia, America, and Europe. For more information, please visit [www.elixirtech.com](http://www.elixirtech.com).