

# *Y&L Information Management*

## PERFORMANCE PORTFOLIO



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### **CLIENT: CINTRA**

**COMPANY PROFILE:** Cintra Toll Services (CTS) is one of the most innovative developers of transport technology infrastructure and is currently supporting multiple tollway concession companies across the US.

**PROJECT DESCRIPTION:** BI report and dashboard development

**ENVIRONMENT:** OBIEE, Oracle BI Interactive Dashboard, Oracle BI Publisher, Performance Tuning

**SUMMARY:** The Y&L Information Management group was selected to design, develop, and deliver over 14 CEO level reports and 5 dashboards, analyzing areas such as accounting, traffic management, and toll operations. In total, over 60 customized reports, charts, and graphs were delivered. The team helped to improve on the original requirements by adding design elements that helped improve performance, or that visually represented the data in a way that was easy to interpret. By taking the time to understand the data model, and learning their business, Y&L developers were able to contribute additional benefits that addressed issues with scalability and performance.



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## CLIENT: CINTRA

**PROJECT DESCRIPTION:** OBIEE Environment Assessment

**ENVIRONMENT:** OBIEE, Oracle Data Integrator

**SUMMARY:** Prior to beginning the OBIEE report development, Y&L was asked to assess the current reporting environment. The client had concerns on how a previous vendor had modeled new attributes and metrics, adding over 250 objects to the repository in a matter of months. In a 4-week period, Y&L analyzed existing design documentation, data dictionaries, and created a number of validation reports. In the end, we delivered a report assessment matrix that cataloged over 975 unique report objects that detailed lineage back to the data warehouse, and identified over 175 issues with those objects that addressed usability and performance. The matrix was supplemented by an assessment document that outlined major findings and recommendations for improvement.

## CLIENT: CONSTRUCTION SPECIALTIES

**COMPANY PROFILE:** Construction Specialties manufactures and sells specialty architectural products internationally, with over 30 locations in 20 countries worldwide. Its products include interior wall and door protection, entrance flooring, expansion joint covers, louvers, grilles, sun controls, specialty venting and privacy track/curtains. The company serves architects and designers, building owners, facility managers and contractors.

**PROJECT DESCRIPTION:** Environment Assessment and Analytic Proof-of-Concept

**ENVIRONMENT:** SQL Server, SQL Server Reporting Services, iDashboards, Salesforce, Proprietary Applications

**SUMMARY:** Construction Specialties (C-S) was looking to partner with a vendor to help gain corporate support for an IT initiative that would introduce an enterprise data warehouse and advanced analytics. Plagued by siloed data sources, hand-scripted query data integrations, and segregated platforms for reporting and dashboards, C-S envisioned a consolidated data environment with a unified reporting and dashboard platform, plus the ability to perform predictive analysis. Y&L engaged and presented two deliverables to help provide the support needed by the IT group: an analytic proof-of-concept, and a current/future state assessment.

The analytic proof-of-concept aimed to show what potential insights could be derived by taking sample data and modeling it in a relational manner. For demonstration purposes, the data was loaded and modeled in Teradata Virtual Machine Edition and manipulated in Tableau. The results were eye opening for C-S group, having never been able to drill into their static reports or make correlations from the data on the fly.

An in-depth assessment of their environment was produced based on interviews with various business and technical leaders. Y&L reviewed each of the applications that made up C-S's quote-to-order process, and reviewed numerous reference architectures. The goal was to compile a complete end-to-end view of how data is consumed, created, and represented. The final deliverable provided breakdowns on the current state, recommendations for future state, and a roadmap for moving to the next step in the journey. C-S's IT leaders were able to leverage the results of the proof-of-concept and the assessment document to present their initiative to company leaders.



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## CLIENT: RACKSPACE, INC.

**COMPANY PROFILE:** RackSpace, Inc. is a managed cloud computing company headquartered in San Antonio, Texas.

**PROJECT DESCRIPTION:** Implement Master Data Management (MDM), Data Quality, and Data Governance across multiple applications

**ENVIRONMENT:** Oracle, Informatica, Informatica Data Quality, Salesforce, Proprietary Applications

**SUMMARY:** The Y&L Information Management practice was selected by RackSpace to manage a large-scale project to implement a master data management strategy. Due to rapid growth, RackSpace was plagued with numerous operational data stores that supported specific applications. Product and customer data was not easily shared between systems, resulting in duplication and inconsistent naming conventions. The Y&L team analyzed the data sources across the various systems and created a single data model. A source-to-target mapping document was designed to show the migration from the source systems to the master tables. Embedded with the integrations were a series of Informatica Data Quality jobs designed to shape and adjust the records into unique, “golden records”. To supplement the technical components of the MDM project, a detailed recommendation document was submitted outlining data governance best practices and identifying specific opportunities for implementing data governance at various points within applications and operational processes.

## CLIENT: SOLAR TURBINES, INC.

**COMPANY PROFILE:** Solar Turbines, Inc., a wholly owned subsidiary of Caterpillar, Inc., designs and manufactures industrial gas turbines for on- and off-shore electrical power generation, for marine propulsion and for producing, processing and transporting natural gas and oil.

**PROJECT DESCRIPTION:** Report migration due to legacy data warehouse retirement

**ENVIRONMENT:** BaaN Data Warehouse, Oracle, Informatica, Cognos

**SUMMARY:** Solar Turbines was up against an immovable deadline to retire their legacy BaaN data warehouse and migrate the existing Cognos reports to their newer Oracle data warehouse. However, the challenge was not to forklift the nearly 15,000 reports, but to reduce that number down to what was actually needed and currently used by the business. A combination of usage reports and power user interviews brought the number down to approximately 2,000 active reports. The work was approached in two phases: analysis and execution. A detailed exercise of decomposing the reports down to their root elements was conducted, and a matrix of all the base elements was produced. The elements were further rationalized to their location in the data warehouse. This exercise identified similar reports and metrics, and created an opportunity to consolidate these objects to further reduce the number of reports to migrate. A set of baseline reports were captured in the old system and referenced during the execution phase. As the reports were recreated in the new environment, they were validated against the legacy reports for accuracy. The result was a huge reduction in the number of reports throughout the environment, the migration of only actively used reports, and the retirement of the legacy data warehouse within the allotted time.

## CLIENT: SOUTHWEST RESEARCH INSTITUTE

**COMPANY PROFILE:** Southwest Research Institute (SwRI), headquartered in San Antonio, Texas, is one of the oldest and largest independent, nonprofit, applied research and development (R&D) organizations in the United States.

**PROJECT DESCRIPTION:** SQL Query and Performance Tuning

**ENVIRONMENT:** SQL Server, SQL Server Integration Services, Proprietary front-end (UI)

**SUMMARY:** SwRI was engaged in a long-term research initiative to test and capture the results of various performance scenarios on a variety of engine types. Their proprietary software recorded dozens of metrics in one-second cycles. Testing times would vary from hours to days. At the completion of each test, the data was migrated to a central database for archiving. The integration would often fail, or lag for extreme amounts of time, due to the amount of data being migrated. The Y&L team was brought in to eliminate the failures and help improve performance. Over a 2-week period, an in-depth analysis of the system logs was conducted, the server and network infrastructure was reviewed and validated to be up-to-date on patches and updates, the integration process and code was reviewed, and the data tables were analyzed for improvement opportunities. The team found a number of areas where changes were necessary. Table indexing and partitioning provided the most improvement, and queries were re-written to optimize load performance. Additionally, several automatic and dynamic maintenance plans were implemented to help with future data growth.

## CLIENT: SWBC

**COMPANY PROFILE:** Southwest Business Corporation (SWBC) is a diversified financial services company providing a wide range of insurance, mortgage, and investment services to financial institutions, businesses, and individuals.

**PROJECT DESCRIPTION:** Improve Reporting on Help Desk Metrics

**ENVIRONMENT:** Aldon Ticketing Master, Excel Spreadsheets

**SUMMARY:** SWBC had contracted Y&L Consulting to provide managed help desk support services. As a result of this engagement, a need for better help desk metric reporting was realized. Y&L's service team reached out to the Information Management team and together created a solution to meet the reporting need. Utilizing data from Excel spreadsheets, a dashboard was created to help SWBC better manage and visualize their help desk support. The dashboard was able to drill-down from a top-level view, down to a specific resource. Tickets-by-team and tickets-by-category metrics were displayed in a bubble chart for easy identification of problem areas. Tooltips were utilized to determine the age of the tickets, owners, last modification dates, and more. This new dashboard drove conversation and gave management an effective overview of their current state at any given time.

## CLIENT: TRINITY CHURCH

**COMPANY PROFILE:** Trinity Church is a diverse church in the San Antonio area.

**PROJECT DESCRIPTION:** Improve Marketing Campaign Effectiveness.

**ENVIRONMENT:** MS Access

**SUMMARY:** Trinity Church needed to identify their target demographic for the acquisition of new students and the retention of old ones. Their goal was to put together a proper marketing campaign. In utilizing a time-series heat map in Tableau, leveraging the enrolled students' previous school zip codes, we were able to determine that a majority of their acquisition took place over the course of five years, one month at a time. In addition to these findings, we were able to marry multiple data sets in order to determine target age, sex, and whether the student had increased performance over time at Trinity.



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