

Build or Buy?

Making a Cost-Effective Data Warehousing Decision

Build or Buy?

Making a Cost-Effective Data Warehousing Decision

In deciding on a data warehouse solution, IT departments face the question of whether to build one internally or to buy a solution from a vendor.

Building a data warehouse from the ground up can be a risky and time-consuming endeavor with no guarantee of success. It can put a lot of stress on an IT department that does not have expertise in requirements gathering, business analysis and user interface design. Even the technical details of efficient database design; security and advanced performance tuning can be daunting.

A pre-built solution addresses most of these concerns, but may involve making painful sacrifices to adapt to it. Even worse, if the vendor's software is based on proprietary technologies, schools become locked into their software, paying them for every customization needed.

Estudias Enterprise provides the advanced features and powerful user interface from a pre-built solution, combined with generous licensing terms. In addition, *Estudias Enterprise* is built on common standards that gives schools the freedom to customize while providing the same freedom and flexibility from an internally-built solution.

Generous Licensing Terms

Estudias Enterprise customers have access to all of the queries, forms and reports so to freely make changes. We continually solicit suggestions from all of our customers in order to enhance the product. *Estudias Enterprise* gets new features that no single person in one school could have ever imagined.

Estudias Enterprise works with only minimal customizations, but if you are interested in total control, you can view it as just a code base from which to start your own development. With this approach you have a way to skip past the initial phases of requirements gathering, analysis, GUI design, implementation, testing and documentation. Instead of dedicating employees to the task of creating a new data warehouse solution and front-end from the ground up, you instantly start with a mature, well-designed application that you can begin to customize.

Common Standards

Every piece of *Estudias Enterprise* is based on open source software or Microsoft products implementing common standards. You will not have to worry about being locked into a proprietary solution that cannot integrate with any other products. For example, our front-end can connect to any ODBC-compliant database.

Database Schema

A database schema describes how data is stored in your data warehouse. Developing one is not a trivial task, as it must carefully balance speed and ease of use. Many data warehousing OLAP schemas are very specifically tailored for a few queries. While these run extremely fast, the schema is often impossible to understand to create new queries. The *Estudias* schema has been developed by database experts and users to get maximum performance and flexibility without sacrificing usability.

User Interface

Very few IT departments have the resources to have someone on staff that is skilled in human factors. Most programmers do not have that kind of training and overlook the design of the user interface. Users, however, *never* overlook the design of the user interface. A front-end tool that is not user-friendly will cause an entire project to fail.

Our highly-acclaimed interface was not created overnight. It took numerous iterations of working with users, understanding requirements, deploying a solution and incorporating feedback. The result is a user-friendly interface that is not only aesthetically pleasing, but simple to use without sacrificing power. As evidence of this, our experience in training sessions is that even users with almost no experience using computers can have working knowledge of *Estudias Enterprise* in less than 15 minutes.

Domain Knowledge

What separates *Estudias Enterprise* from being just a data warehouse is the group – or departmental – tier. It provides a way to consolidate the various “islands of information” spread across several different departments. In other words, group-specific information that is now spread across a half dozen proprietary programs, Excel spreadsheets and even paper can be moved to a secure and centralized location. Having one program for the campus instead of one for each department significantly reduces IT support costs, enables powerful information sharing (see: <http://zogotech.com/estudias/enterprise/referral-scenario.htm>) between departments and ensures data security.

Most IT departments do not have the resources to understand all of the intricate reporting requirements of various departments. ZogoTech, however, is eager to understand all of the intricacies of every one of your departments because we believe that this will further enhance our suite of *Estudias* products.

Updates and Upcoming Features

As you read this our developers are working on new features such as data mining and web access. Working with ZogoTech is like having a group of top developers working full-time for you. Your IT department can sit back and relax while we implement advanced features and tackle the most difficult problems. Here are some of the projects we are currently working on:

http:Estudias

Our web version of *Estudias Enterprise* will allow access to student classes, test scores, financial aid. Reports can also be run through a web browser. Advanced permissions management allows you to control who is allowed to log on and what they see.

Data Mining

One of the most pressing issues facing institutions of higher education is retention. Our current version of *Estudias Enterprise* begins to address this problem by making it easy to identify students with falling GPAs. To those within certain criteria, letters or emails can be automatically generated with information to help draw the student back in to the school. However, upcoming versions will truly empower schools with the ability accurately identify at-risk students long before they are in danger of dropping out. Data mining allows you ask questions such as “Which students are most likely to drop out in the first year?” or “How will changing the prerequisite of this class affect student retention?”

Other Modules

Showing student academic information is just the beginning. In upcoming versions you will be able to link this with other ERP modules such as billing and Human Resources. Not only will it be easy to pull up a list of students who have not yet paid tuition, for example, *Estudias Enterprise* will link this information to Data Mining services so that it will easy to make predictions like “What effect will raising tuition have on student enrollment?” or “What will be the effect of increasing the cost of this class?”

Deeper Domain Knowledge

ZogoTech is constantly deepening its domain knowledge in the field of student tracking. We meet with administrators and advisors in many schools. We are constantly exploring ways to include the latest student-tracking research into our *Estudias* products. For example, we are currently evaluating research publications from the National Center for Higher Education Management Systems (NCHEMS) to include more sophisticated cohort-based longitudinal tracking of students.

Build or Buy? Question Answered

As you can see, *Estudias Enterprise* provides the advanced features and powerful user interface that you would get from a pre-built solution combined with generous licensing terms and software built on common standards. In addition, *Estudias Enterprise* provides the freedom to customize it as if you would have built it internally.

If you are skeptical of pre-built solutions and desire complete control over your data warehouse solution, *Estudias Enterprise* is the solution. As an enterprise customer, you will have access to all of the forms, queries, and reports. You will receive upgrades with advanced features like data mining and web access at a fraction of the cost that it would take to develop these in-house. You can use this as a launching point for your own software initiatives, if you like. Why spend months straining your IT department with requirements gathering, user interface design and training? Only *Estudias Enterprise* allows you to quickly roll out a high-quality solution while freely make changes.