

R·I·T

Informatica Graduates from Rochester Institute of Technology with an A in Data Integration

The Informatica Platform allows Rochester Institute of Technology to shift away from hand coding and harness its academic data for improved student management and retention.

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— Kim Sowers, director of application development, Rochester Institute of Technology

FAST FACTS

BUSINESS INITIATIVES

- Support academic business intelligence
- Optimize operational efficiency

TECHNOLOGY STRATEGY

Deployed Informatica PowerCenter and Informatica PowerExchange to access consistent, accurate, and reliable data faster than ever before. This enterprise-wide, integrated hub supports a range of source data, including the university’s mainframe ADABAS environment.

Consider Rochester Institute of Technology’s Dilemma

Talented, ambitious, and creative students of all cultures and backgrounds—from 50 states and more than 95 countries—attend Rochester Institute of Technology (RIT). But who are they? What are their enrollment criteria? What are persistence and graduation patterns, enrollment trends, and internal transfer behaviors? Answering such questions was sometimes difficult. Years of reliance on one-off, hand-coded data interfaces and manual extraction meant data resided on many disparate systems, including a mainframe ADABAS environment. Some critical and federally-mandated reports could take as much as four to five weeks to develop and produce—by which time the data was not immediately beneficial.

By standardizing on an Informatica® Platform, implemented under the guidance of Informatica Professional ServicesSM, RIT is shifting away from hand coding and harnessing its academic data for improved student management and retention. The introduction of a data warehouse eight months more quickly than if it had been designed using hand-coding techniques means that crucial reports are all now available the same day, for fast, accurate, and trusted academic decision making. These reports include student retention and graduation evaluations, academic program effectiveness assessments, and how well the university retains students as their degree programs progress.

“We were data rich but information poor.” That comment by Kim Sowers, director of application development at RIT, summarizes the situation this major technical university found itself in before it deployed Informatica. The university needed to leverage the data at its disposal as part of its strategic planning; however, that data resided in multiple different silos, and manual processes were necessary to extract the data before it could begin to be used for reporting.

RIT is a nationally respected leader in professional and career-oriented education, with eight colleges offering more than 90 different bachelor’s degree programs. These extend far beyond science and technology and include study in programs such as photography, political sciences, and fine arts to name a few. Reporting is a foundation of that success. On the one hand, RIT needs to understand as much as possible about the academic aspect of its operations, including admissions information of the nearly 17,000 enrolled students, and persistence reporting (the number of students who stay at RIT in pursuit of a degree). On the other hand, the university needs to provide information on its activities to support state and federally mandated academic reporting as well as numerous other external entities including IPEDS (Integrated Post-Secondary Education Data System), CSDE (Consortium for Student Retention Data Exchange, College Board), and the New York State Education Department.

None of that is easy when your data is residing in disparate and closed technology systems—the result of years of one-off, hand-coded data interfaces, as Kim Sowers explains, “You used to be able to tell when we were doing the annual persistence reporting, because we were continually walking back from the data center with stacks of paper in our arms,” she says. “We relied on 4GL languages to write programs to extract the data, and too much of the university’s reporting relied on paper processes and manual extraction. Some of the reports took up to four or five weeks to produce and distribute—by which time of course the data was not timely—and there was a potential lack of consistency across reports or different versions of the same report.”

Flexibility and Future Road Map Single Out Informatica

As part of a multiyear strategic plan to create central repositories of information, RIT needed to update, modernize, and streamline its data infrastructure. At this point, Informatica entered the picture. RIT undertook a detailed, rigorous evaluation of multiple vendors with data integration capability and chose Informatica based on the flexibility and future road map of its technology.

Kevin Dudarchik, manager of data management services at RIT, explains why Informatica was the right choice, “I could talk for hours about how good Informatica is,” he says. “Their technology offers the best integration between our source systems, like ADABAS, and the target; the performance is excellent; and the Informatica architecture fit the direction we were taking with our data infrastructure. The Informatica technology is also extremely easy to use: it integrated well together, it’s useable, and the user interface is quick and easy to learn.”

With a data integration and business intelligence strategy focused firmly on the academic side of its operations, RIT has deployed Informatica PowerCenter® to design, build, and manage its Oracle-based enterprise data warehouse. PowerCenter enables Sowers and her team to integrate historical and operational data as a team, seamlessly sharing the development. The solution offers the additional benefits of Web-based data profiling/reporting, dynamic partitioning, and flexible metadata analysis capabilities.

Informatica PowerExchange is also deployed to access the ADABAS enterprise data on the IBM mainframe without having to develop custom data access programs. Fully integrated with Informatica PowerCenter, PowerExchange enables fast, efficient development through its easy-to-use graphical interface. Moreover, the solution reduces risk by accessing the ADABAS data directly and increases the flexibility of Sowers and her team, because common PowerExchange skills transfer is available across each source with little training. For improved data accuracy and agility, the Informatica PowerExchange Change Data Capture Option™ will also be added later to capture database inserts, updates, and deletes as they occur.

Informatica Turns Data Into Actionable Intelligence

Time and again, RIT has turned to the data warehouse to provide the information needed for fast, accurate decision making. The warehouse has supported efforts such as a high-visibility assessment of the effectiveness of a specific academic program geared towards high-school students preparing for college conducted by RIT's Institutional Research department. According to Dudarchik, "The cleanliness and availability of the data in the warehouse greatly reduced the time associated with performing this assessment and the resulting accuracy of it."

With only limited resources at its disposal, RIT has so far delivered three releases of the data warehouse. Informatica Professional Services was instrumental in the first iteration, providing installation skills, knowledge transfer, documentation, and training. This input included weekly status reports outlining progress and accomplishments and the delivery of useful sample scripts to assist the change management/migration process. "It took 6 months from the day Informatica Professional Services first arrived on site to the day the warehouse went live," says Sowers. "If we had used the traditional hand-coding methodology, we would have been looking at 14 months—and that would have been unsustainable. RIT has very high expectations concerning the consultants it works with and Informatica Professional Services exceeded all those expectations." The excellence of Informatica Professional Services' mentoring and knowledge transfer facilitated the rapid development of subsequent iterations by the RIT team.

With the success of its academic reporting initiative, application development needs across RIT are starting to drive the use of the Informatica Platform for enterprise data integration projects outside of the data warehouse. In one example, the platform is currently being used in the development and implementation of a new student housing systems environment, where it will integrate data to and from numerous disparate sources back into the system - including mainframe data, delivering the resulting information to multiple targets. In another example, the platform will enable secure cross-enterprise integration between RIT and a third-party ASP's systems environment in support of RIT's Study Abroad programs.

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Mission-Critical Information Available When and Where It's Needed

That fast, sustainable development of the data warehouse means RIT now has mission-critical information available when and where it's needed. If the university president wants to know how many students are enrolled in a particular college, for example, he can now have that information in seconds, either in summary form or in a drill-down detailed format. For the first time, RIT can circulate regular reports on retention and graduation to identify how well the university retains and graduates students. And Informatica provides the knowledge needed to understand "internal transfers": enrolled students who switch their program of study within the institute.

"We're becoming myth busters," says Sowers. "In the past, a lot of our decisions were based on an interpretation about what was really happening. We didn't have the knowledge to validate the decisions we were making. We do now. Informatica provides timely, accurate information we need to spot trends, improve the effectiveness of our academic programs, and bolster student retention."

By introducing Informatica data integration solutions, RIT has come full circle. The university is now rich in both data and information.

LEARN MORE

Learn more about PowerCenter, PowerExchange and the entire Informatica Platform. Visit us at www.informatica.com or call 800.653.3871.

ABOUT INFORMATICA

Informatica enables organizations to operate more efficiently in today's global information economy by empowering them to access, integrate, and trust all their information assets. As the independent data integration leader, Informatica has a proven track record of success helping the world's leading companies leverage all their information assets to grow revenues, improve profitability, and increase customer loyalty.

BENEFITS

- Supported evaluation of retention to determine how well the university retains students as degree programs progress
- Provided the knowledge to identify which enrolled students switch their area of study
- Streamlined the delivery of a high-visibility research grants assessment program
- Supported development of new student housing system
- Underpinned the university's study abroad program
- Reduced time required to prepare reports from up to five weeks to same-day reporting
- Accessed mainframe ADABAS data without having to develop custom data access programs
- Lowered risk by accessing data directly
- Improved data accuracy and agility
- Captured database inserts, updates, and deletes as soon as they occur
- Provided the information needed for fast, accurate academic decision making

NUTS AND BOLTS

- Products: Informatica PowerCenter Advanced Edition, Informatica PowerExchange for ADABAS Change Data Capture, PowerExchange for ODBC, Informatica Data Explorer
- Solutions: Enterprise data warehouse; business intelligence, operational data integration
- Services: Informatica Professional Services, Informatica Global Customer SupportSM
- Sources: ADABAS and Oracle
- Targets: Enterprise data warehouse

INFORMATICA[®]
The Data Integration Company™

Worldwide Headquarters, 100 Cardinal Way, Redwood City, CA 94063, USA
phone: 650.385.5000 fax: 650.385.5500 toll-free in the US: 1.800.653.3871 www.informatica.com

Informatica Offices Around The Globe: Australia · Belgium · Canada · China · France · Germany · Ireland · Japan · Korea · the Netherlands · Singapore · Switzerland · United Kingdom · USA

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