



“Varsity Logistics brings their software cycle under control with the ARCAD suite and halves their time to delivery”



Using the integrated solutions of ARCAD-Skipper for Change Management, ARCAD-Observer for impact analysis and retro-documentation, and ARCAD-Verifier for regression testing, Varsity Logistics consistently achieve record low error-rates in their application releases – while doubling productivity through automation.



Varsity Logistics

CUSTOMER SUCCESS STORY

About Varsity Logistics

Founded in 1989, Varsity Logistics is number one U.S. provider of integrated multi-carrier shipping software specializing on the IBM i platform. Varsity develops on IBM i, but its software can be connected to ERP systems running either on IBM i or in the Unix World. Focused on management needs of mid-sized businesses and large enterprises, Varsity shipping software holds 95% of market share on the IBM i platform and 25 to 35% outside this platform.

Varsity's IT organization

Varsity Logistics deploy their applications and services across a base of around 300 customers. For each customer the application is tailored to suit their needs. So 300 customers means 300 separate versions of the software each with its own individual set of fixes and changes. Let's get an idea of the volume of change. The IT department supports 3 major applications under change control. Within each application there are in the order of 3500 programs, 1000 to 1200 database files, 300 to 400 screens and 300 to 400 print files.

Varsity's Issues and Goals

The first goal addressed by the Varsity team was to improve their change management processes. Cleaner and more accurate changes could give them an edge in their ever-changing industry. To start, ARCAD provided Varsity with ARCAD-Observer, to automate the generation of technical documentation about their systems and programs that was sorely lacking. **“The application is very complex and cannot be changed easily without good documentation”** explains Doug Dolge, Senior Director of Product Development at Varsity. **“Before we had ARCAD-Observer, the only way to get good documentation was to go through thousands of lines of code and create it manually. That was extremely difficult to accomplish and maintain because there were some 300 versions of each program”** he adds.

“ *The fact that ARCAD's products are totally integrated made it the best approach for us”*

explains Doug Dolge, Senior Director of Product Development at Varsity



“What’s more, it was extremely difficult to educate and train people for testing & development because we didn’t have good documentation. The first version we produced took over eight months to test and deliver. We found that to be totally unacceptable” said Doug.

ARCAD – The Solutions

Varsity now uses each of the main Arcad solutions, including ARCAD-Skipper for Change Management.

Varsity started with Verifier and Observer. They used those products for several months before implementing ARCAD-Skipper. The fact that ARCAD’s software is totally integrated around a single open repository gives Varsity the confidence that the changes and enhancements made to their software will be done in compliance with their QA plan. **“It’s true that it was very important for us to find a solution that came from a single source no matter what product was involved.”** adds Doug. In this case, they wanted one vendor, one technical support number to use, and one company to support the 3 products they needed. **“The fact that ARCAD’s products are totally integrated made it the best approach for us”** he said.

Varsity also noted that the decision making process on what work would be done was driven more by problem resolution than anything else.

“Before ARCAD-Skipper and ARCAD-Verifier, our complex maintenance cycle was beginning to become unsustainable. Without these products, I am convinced that as a company, we would have eventually found it impossible to support our clients well, and would have lost major revenue and business.”

Prior to the implementation of change management, Varsity manually created and distributed patches and enhancements to each customer individually. Remember, they have 300 customers, each running their own customized version of the programs. All this needed to be taken into account in their change and testing processes.

Varsity’s mission was to completely test the application before distribution to improve the quality and reliability of the application.

The number of test scenarios to achieve this was directly related to the number of customized versions they supported. So for a single program, they might have 300 different testing scenarios. That’s a lot to manage manually. It is also time consuming and labor intensive.

Varsity implemented ARCAD-Verifier to solve this problem. Verifier takes care of data used for testing, and the test scenarios that exercise the program functionality and record the results. Scenarios are selected automatically by ARCAD and bundled into a test campaign based on the objects changed. In other words, you change anything about a program and ARCAD will select and run all its test scenarios. That means you are testing not only the change, but the rest of the program as well to detect any side-effects. In this way, Varsity can now test more and spend less time doing it.

Each time Varsity makes a change, they capture a new test scenario within ARCAD-Verifier. The next time they change that program - the previously recorded scenarios are automatically selected and grouped into the test campaign. That test campaign is then used over and over until they verify the modifications are working properly. This is now done for every change before it is rolled into production. **“Developers are building up a great base of test scenarios that ensure the reliability of the application”** said Doug.

In terms of time spent during application development, 85% of Varsity’s time is concentrated on customer support and fixes or PTF management. The remaining 15% is concentrated on compliance updates. **“We are in a business where there’s a new set of rules established each year. Those rules have to be incorporated into the product”** explains Doug. That creates new development activity. Varsity works with the industry’s leading carriers to ensure the software is fully compliant with the latest rates, labels, manifests, service types and value added services. **“It’s what makes us a value to our customers”** Adds Doug. **“Every compliance update required gets integrated into the customer’s version of the software by default.”**

To support this testing activity, no less than 200 test scenarios have been created containing anywhere from 1 to 5 transactions each. The duration of a typical test cycle for a rolling PTF release involving customer com-

pliance is about 4 months. The test cycle for a “hot fix” is down to 3 days on average.

Prior to Verifier, the manual process Varsity was using to test took 8 months to complete. With Verifier the process now takes 4 months. That’s significant. **ARCAD-Verifier has more than halved their time to delivery.**

Furthermore, the last version they released had fewer errors than ever before and was accomplished with only 3 people in the QA department.

“After our first use of ARCAD-Verifier, we released our application with fewer errors than any previous version in history”

Doug Dolge

Objectives achieved!

“Varsity achieved return on their investment almost immediately: “ARCAD-Verifier had already paid for itself 2 months after its implementation - and has now paid for ARCAD-Skipper change management and ARCAD-Observer retro-documentation as well”

Doug Dolge

Varsity, like any organization is constantly improving its productivity and the majority of this productivity increase was achieved during the first twelve to eighteen months.

UPCOMING PROJECTS

The Varsity Company is always looking for ways to optimize their level of automation. One of their major needs is to get their data and parameter changes under control. The Varsity applications use a set of parameters and data values that control at least 45% of the products behavior. Varsity plans to get data and parameter changes managed and under change control within a year. To accomplish this goal, Varsity will use the ARCAD-Datachanger solution.

