FKS II Integration Suite by Joseph Brady

More and more organizations are looking toward integrating their internal processes and sharing data and business processes between their networked applications and data sources. This information usually spans across multiple internal applications and must be able to dynamically communicate before a company can effectively implement B2B activity with the outside world.

Most companies currently use disparate legacy systems, applications, processes, and data sources that interact through a web of expensively maintained interconnections. When future mergers and acquisitions are added to that, the complexity of the environment will only increase.

Additionally, applications such as enterprise resource planning (ERP), customer relationship management (CRM), etc. present a challenge when they are integrated with other systems in the enterprise because of their original "stand-alone" natures.

What is Enterprise Application Integration (EAI)?

EAI is basically the process of building a fully integrated infrastructure for linking disparate systems, applications, and data sources across a corporate enterprise. The origin of EAI solutions goes back to the need for providing a full solution to share application function seamlessly and exchange data between databases, data warehouses, applications, and other

Disparate systems, applications, and data sources currently interact through a convoluted web of expensively maintained interconnections.

New TSI Partnership with Leading German Application Integration Vendor

Treehouse Software, Inc. (TSI) and ESICON® Enterprise System Integration Concepts GmbH recently announced an exclusive partnering agreement to provide comprehensive Enterprise Application Integration (EAI) solutions to the North American market. The agreement expands Treehouse's overall data transfer offerings, currently the company's highest growth product segment, while also enabling the company to target new markets.

ESICON, a Bavarian company based in the city of Schönberg, has created an integration solution that virtually eliminates programming and
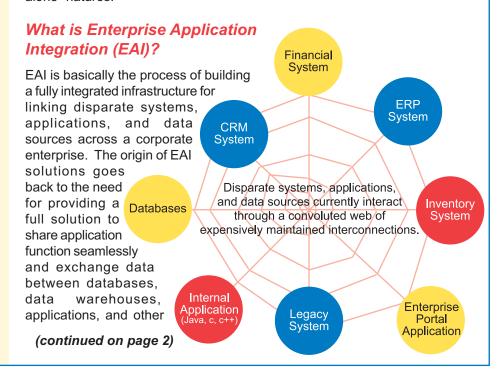
Inside This Issue

Treehouse Software, Inc.

Editor's Sproutings *by Joseph Brady*

TSI Traveling Tales

Over the past few months, Treehouse representatives have been very busy on various consulting jobs and product demonstrations. They have visited sites in Canada, California, Colorado, Germany, Illinois, New York, North Carolina, Texas, Utah, Virginia, Washington D.C., and Washington State

TSI and Broward Community College Teamed Up at MAXIM

The 2002 MAXIM Conference in Galveston, Texas was the site of a presentation featuring an ADABAS-to-ORACLE data mart project given by **Wayne Lashley**, Senior Technical Representative for TSI, and **Patti Barney**, Associate Vice President of Information Technology for Broward Community College (see article on the Broward project in TREETIPS #35).

The purpose of the MAXIM Conference was to provide information sharing, education, networking opportunities, and mentoring experiences for IT professionals in higher education who are working on administrative computing development projects.

TREETIPS

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PNP 2002 - 08 - 14   LOKALES
Software-Firma ESICON hat jetzt einen Partner in den USA
Bürgermeister Peter Siegert gibt Rathausempfang für Besuch aus Amerika

The Szakach's visit with the mayor of Schönberg was published in the local Passauer Neue Presse.

George, Emilie, and Michael Travel to ESICON Headquarters in Germany

George Szakach, President of TSI, his wife **Emilie**, and his son **Michael** recently spent some time in Germany getting to know the staff and families of our new partner, ESICON. **Bernd Schuck**, ESICON's Managing Director, saw to it that George, Emilie, and Michael were afforded every hospitality. While in Schönberg, they were greeted by the mayor, Bürgermeister **Peter Siegert**.

When visiting Schönberg, one cannot miss out on some of the local delicacies, so, among other things, George and family had a taste (or two, or ?) of BÄRWURZ, a drink made from the root of a very rare plant of the same name. The BÄRWURZ that the Szakach's sampled is distilled in the Bavarian Forest from an old, traditional recipe by a small distillery at Castle Ramelsberg.

FKS II Integration Suite (continued from page 1)
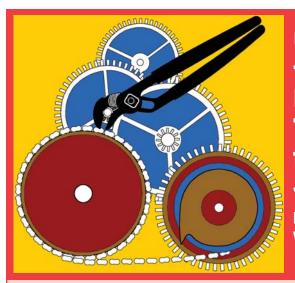
important systems within an organization.

FKS II is an integration product that is positioned toward organizations that are looking for an easy to use, quick to implement data or application integration solution.

FKS II essentially functions as an extraction and transformation tool, whose fundamental service is to access data from any source, perform filtering and mapping, and deliver it to an unlike destination after transforming it to a form that can be accepted by the target.

More in-depth information on **FKS II** will be presented in the next issue of TREETIPS and on the TSI Web site. ●

Link disparate systems, applications, and data sources across the corporate enterprise dynamically, and in real-time.

Financial System
CRM System
ERP System
Databases
Treehouse Software, Inc.
Inventory System
Internal Application (Java, c, c++)
Enterprise Portal Application
Legacy System

Using the Right Tool for the Job

by
Wayne Lashley

As customers turn to TSI for real solutions for ADABAS data extraction and transfer, we often are asked, "Why does Treehouse market both **ADASTRIP** and **tRelational/DPS**, both of which address this issue?"

This is a matter of using the right tool for the job. For fast and flexible data extraction from ADABAS sources in OS/390 shops, including simple normalization of PEs and MUs, **ADASTRIP** is a fine choice. It is easy to install, can be learned quickly, and is extremely efficient. **ADASTRIP** also offers the flexibility of using static (ADASAV/PLOG/QDUMP) sources or the ADABAS files directly. In the latter case, it actually bypasses the ADABAS nucleus and reads and buffers the associator and data blocks directly. One customer wrote on SAG-L:

"We use **ADASTRIP**, and we like it very much. It is very fast - it takes about 40 minutes to read a 20-million-record ADABAS file (900-byte LRECL), select and write about one-tenth of the records out to a DSN. (I can't remember how long a NATURAL program took, but I think I gave up and canceled the job after four hours....)"

Designing, building, populating, and updating an RDBMS-based data warehouse using ADABAS data goes far beyond mere data extraction, however. That is why Treehouse's **tRelational/DPS** solution provides ADABAS file analysis (structure and content); support for the most complex data mappings and transformations imaginable within an extensible architecture; infinitely flexible options for MU/PE handling; RDBMS schema and DDL generation; a GUI modeling and mapping tool; a metadata repository; a high-performance, high-volume, completely scalable extraction and transformation engine; and native-format RDBMS output and both ETL (full load) and CDC (changed data capture processing via the PLOG) capabilities. All of this in a package that installs and executes in your normal mainframe ADABAS/NATURAL environment—be it OS/390, VSE, or BS2000.

In addition, the **tRelational/DPS** package includes a set of utilities that facilitates data cleansing, PLOG analysis and management, and cross-platform (mainframe/UNIX/Windows) automation of data warehouse loading and updating.

For additional information and customer success stories, please see http://www.treehouse.com.
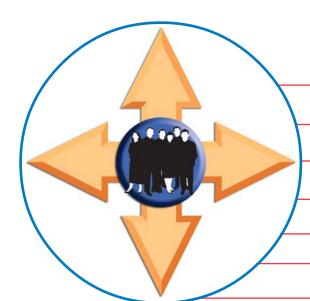
New TSI Partnership

automates the documentation of the business processes. Funded as an IT research center by the German government, the company is chartered to commercialize technology and concepts developed from state sponsored research projects on application integration. **FKS II** is the resulting commercial product suite, and it is now distributed and supported by over 25 partners worldwide. Seventy percent of the company's 112 installations use the ALE-certified product for SAP® R/3® or mySAP.com. Well-known SAP users employing **FKS II** include Dunlop Aviation, Bombardier, Mediamarkt, Fujitsu, and others.

"The joint strategy with Treehouse underlines ESICON's global direction. Aside from ESICON, few other German EAI manufacturers have been able to build such a wide-spread sales and support network," said Bernd Schuck, ESICON's Managing Director. He added, "Besides the existing ESICON Competence Centers in Europe and Australia, the expansion can now be extended worldwide together with Treehouse. With our strategic entry in the North American market, ESICON's top position among German application integration software vendors grows even stronger."

"Ten years ago many Treehouse customers used ADABAS to the exclusion of almost everything else. Today those same customers have a multitude of packaged applications and relational databases that all need to be integrated," said George Szakach, President of Treehouse Software. He added, "We were looking for a full-featured product that could be priced competitively for mid-market customers. **FKS II** is a great fit for our needs."

The companies will jointly market, sell, and service the **FKS II** product suite. Under the terms of the agreement, Treehouse is granted exclusive distribution rights in North America, as well as worldwide distribution rights. Treehouse plans to undertake select development initiatives for **FKS II** to better meet the ADABAS requirements of their installed customer base.

Look for a feature article on how **FKS II** can meet your business integration needs in the next issue of TREETIPS. ●

TSI Consulting Services deliver the expertise that maintains your investment in legacy ADABAS/NATURAL systems

Recently, customer interest in TSI consulting services has been on the increase, especially in the areas of ADABAS data transfer, and ADABAS/NATURAL performance and tuning. This is very fortunate for the customers and TSI, since we've been developing and supporting performance, tuning, and quality assurance products for ADABAS and NATURAL since 1982. And, with the addition of **David Del Rio** to our staff (see TREETIPS #35), we've been able to ramp up our consulting offerings in this area.

Our consulting services include ADABAS and NATURAL environment tuning and optimization; NATURAL program optimization; NATURAL program coding; help with special routines or user exits for NATURAL and/or ADABAS; and product installation and training. Additionally, TSI technical representatives are very busy at customer sites assisting with ADABAS-to-RDBMS projects. This involves anything from product installation, ETL and CDC processes, to whatever data transfer tasks the customer requires.

The TSI Consulting Approach

TSI undertakes a variety of different types of consulting engagements ranging from installation support to consulting teams delivering custom solutions. For all of our solutions we use the following four-step approach:

1. Determine the focus, or lay out the scope of the engagement
2. Define the desired results (business and technical), which will vary according to our engagement
3. Design the solution
4. Implement the solution

After the previous steps are accomplished, TSI moves into a support role. We provide a complete set of support offerings for our products and periodic subject matter expertise for custom development or application issues.

Need help with your ADABAS data transfer project?

In addition to offering the premier ADABAS-to-RDBMS product solution on the market, TSI also provides consulting

And we bring our own tools...

TSI has been developing, marketing, and supporting top ADABAS/NATURAL data transfer and performance/tuning assistance tools for the past 20 years. TSI consultants come to your site armed with a comprehensive set of products that can help organizations better manage their ADABAS/NATURAL applications and extend their investment in existing legacy applications.

Our time-tested tools provide a wide range of capabilities:

Data Transfer

Easy access to ADABAS data for data warehouse, business intelligence, and other off-the-shelf Internet and intranet applications.

Database Utilities

Increase DBA productivity.

Performance Management

Improve performance from ADABAS and NATURAL applications.

Development

Lower cost to support and enhance existing NATURAL applications.

Change Management

Track and manage changes to business-critical NATURAL applications and ADABAS installations.

Security

Safely manage security for ADABAS and NATURAL Applications under ACF2, TOP SECRET, or RACF.

services to assist customers in data transfer projects.

Many shops find that they have IT staff that are well-versed in ADABAS but lack skills and experience in the RDBMS(s)

TSI Consulting Services
(continued from page 4)

being employed, or vice-versa. Even when shops have people with that rare ADABAS-plus-RDBMS combination skill set, these people are often overburdened with a multitude of important tasks and projects. The task of extracting and transforming ADABAS data to transfer to ORACLE, DB2, SQL Server, and Sybase can be a daunting one where skills and experience count. A TSI ADABAS-to-RDBMS data transfer consulting engagement may take many forms, from high-level project management and technical steering to a complete turn-key solution.

A typical project begins with a site visit by the TSI project manager and possibly technical consultants to meet with stakeholders; gather business objectives and requirements; identify the resources, considerations, and constraints; and understand the source and target technology environments. A project plan is prepared by the TSI project manager, often in conjunction with a project manager on the client side, and all parties agree on the scope, schedule, roles, assumptions, deliverables, and costs. The work may proceed on-site, off-site via remote access, or in a combination mode. We generally find that projects work best when key client subject-matter specialists and technology specialists are available to make decisions and expedite problem resolution.

TSI consultants leverage our many years of experience with ADABAS, leading RDBMSs, and our **tRelational** and **DPS** tools to ensure that the projectis a success. For example, we use **tRelational**'s ADABAS file implementation and analysis features to highlight potential downstream problem areas. In our experience, source data quality is an under-appreciated but critical success factor in projects of this type. We may propose use of other products, such as **PEEK**, our ADABAS file browser, to facilitate investigation and correction and to identify any requirements for customized **DPS** external transformation routines.

Using **tRelational**'s "auto-generate" functions, customizability, and highly-productive modeling environment, we can quickly create complete and fully-functional schema(ta) and DDL (**D**ata **D**efinition **L**anguage) for the target RDBMS. Often, we can accomplish a preliminary materialization, load, propagation, and update in days or even hours. Refinement of the schema design and source-to-target mappings may take place using an evolutionary or iterative approach, taking into account the requirements and schedule of the introduction of the user query tool or application, and this process may span several weeks. This approach is facilitated by the fact that **DPS** is designed for high-volume, high-performance, high-complexity ETL/CDC (**E**xtract-**T**ransform-**L**oad/**C**hange **D**ata **C**apture), and it has zero impact on the client's live ADABAS databases.

TSI builds the production infrastructure to support the **tRelational/DPS** implementation according to customer needs and using our own components or those provided by the customer. Again, our experience with past projects and our tools helps avoid "reinventing the wheel" and delivers "best practices".

There is a normal period of post-implementation close support, where customer problems and questions are diagnosed and resolved and the environment can be fine-tuned. We often provide this support via the Internet through WebEx desktop-sharing technology.

While the above outlines a generalized project, TSI consultants can be made available at any phase of a customer's data transfer project in order to supplement existing resources or provide specific expertise. Contact TSI for additional information. ●

...TSI consultants are available at any phase of a customer's data transfer project in order to supplement existing resources or provide specific expertise.

"During the Miami conversion to Banner, we had large amounts of ADABAS data in a legacy database. We used Treehouse Consulting Services to convert some of this data to ORACLE format for us and were very satisfied with the result. Since I was the ADABAS DBA at another organization before coming to Miami, I knew that Treehouse had been active as a third party vendor to ADABAS for many years and had a good reputation."

William L. Custer
Manager of Data Administration
Miami University
Oxford, OH

Implementation of N2O Helps Maintain a Secure Development Environment

by Kurt Zieffle, Department Leader at EBZI

In the financial section of the Ministry for Food and Agriculture in Baden-Württemberg, Germany (MLR) there are over 20 subsidy schemes in operation. The development and maintenance of these schemes is done by EBZI (Development and Maintenance Centre for Information and Communication Technology for the Ministry, MLR) at the Office for Land Administration and Development in Baden-Württemberg.

The schemes are developed and implemented in NATURAL 3.1.3 using the ADABAS database 7.1.2 on an MVS-Mainframe (OS/390).

A total of 400 million Euro is provided by the EU for payment to the farmers in Baden-Württemberg.

Because of the EU requirements for data security of computer systems that process EU subsidies, it was necessary to install a NATURAL versioning tool.

The change management product, **N2O**, from Treehouse Software was chosen after a public tender announcement at the beginning of 2002. Other NATURAL versioning tools were evaluated besides **N2O**, and it was decided that **N2O** best satisfies the data security requirements and can be easily integrated into the existing ADABAS/NATURAL environment. **N2O** has been in the production environment at EBZI since July 2002.

The change-management concept at EBZI consists of the transfer between 3 separate environments: Development, Test, and Production (see Diagram 1). **N2O** enables the environments and migration paths to be defined, whereby a clearly structured process for the migration is ensured. NATURAL objects and SYSERR text messages are migrated between and inside the environments. An additional security measure is provided when objects are transferred into production. This consists of an authorization procedure, whereby a project or subproject leader has to give the go-ahead (on-line), and then the NATURAL objects are migrated to production and cataloged. When data areas (PDA, LDA, or GDA), copycodes, or maps are a part of the migration, the cross-reference informatio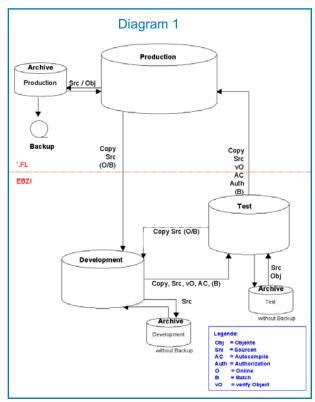n is used to ensure that the NATURAL objects already in the destination environment that use the migrated objects are also re-cataloged. This functionality ensures that the programs in the destination environment remain usable. All activities connected with the migrations are recorded and can later be examined.

The simultaneous migration of NATURAL objects and SYSERR texts by more than one person is prevented by using the **N2O** checkin/checkout mechanism. Additionally, the status of a particular NATURAL object in the migration process can be determined at any time.

The legal and organizational requirements for the availability of backups and the provision for auditing are satisfied by the versioning with the associated backup archives. This allows the development teams to gain access to an old version of a NATURAL object via the archive. This saves the time consuming renaming and copying in intermediate libraries that is necessary for parallel modifications or maintenance.

In order to speed up the migration process, a system of automatic e-mails was developed by EBZI, whereby **N2O** user-exits were used to send e-mails automatically to the program developers when an authorization was necessary or after a batch migration event was completed. These e-mails provided information about success or failure of the event, together with the batch job number.

By using **N2O**, EBZI has achieved a high standard of migration and auditing security. ●

Diagram 1

Talkin' 'bout My Auto-generation...

by Joseph Brady

tRelational provides three options for developing RDBMS data models and mapping ADABAS fields to RDBMS columns:

Option 1:   Auto-generation

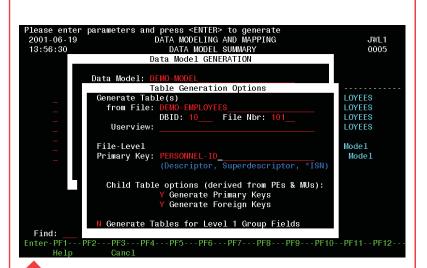Option 2:   Importation of existing RDBMS schema elements

Option 3:   Detailed definition and manipulation of schema and mapping elements using **tRelational/tRelationalPC**
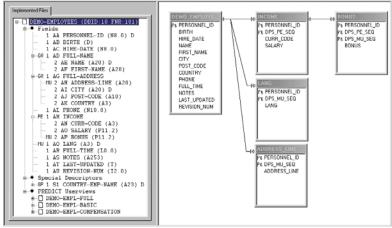
The Auto-generation function can be a huge productivity aid. By simply invoking this function and specifying an ADABAS file structure, a fully-functional corresponding RDBMS schema (Tables, Columns, Primary Keys, Foreign Key relationships and constraints) and appropriate mappings are created virtually instantaneously. The table and column names, datatypes, lengths, and mappings/transformations are all automatically tailored specifically for the RDBMS product, platform, and version--the user need not be an expert in the RDBMS. This function is available both in mainframe **tRelational** and in the companion **tRelationalPC**.

The auto-generated model can be immediately used to generate both RDBMS DDL and parameters for TSI's **Data Propagation System (DPS)**. Within minutes of identifying the desired ADABAS file or files to **tRelational**, the physical RDBMS schema can be implemented on the target platform and **DPS** can be materializing and propagating data to load into the tables.

It is important to note that these modeling options complement each other and can be used in combination to meet any requirements. Auto-generated schema elements can be completely customized "after the fact", as can imported elements. Auto-generation can be used at the file level to generate complete tables and table contents at the field level to quickly define and map one or more columns within a table or even to denormalize MU/PE structures into a set of discrete columns.

tRelational's schema auto-generation simply requires specification of an ADABAS file structure and associated options.

Auto-generation is also available in **tRelationalPC**, the Windows-based GUI modeling and mapping environment included with **tRelational**.

TREETIPS

Treehouse Software products include:

ADABAS-to-RDBMS Data Transfer Product Suite:

tRelational - ADABAS modeling, mapping, and data analysis tool; **DPS** parameter generator

tRelationalPC - Windows-based graphical interface to make the tasks of modeling and mapping even simpler.

Treehouse Remote Access (TRA) - Middleware that allows **tRelationalPC** to communicate with **tRelational** on the mainframe.

DPS - ADABAS to RDBMS data materialization (ETL), replication, and propagation (CDC) software

Data Integration Product:

FKS II - Integration suite that connects applications and data within the enterprise or between business partners.

UNIX Products:

SEDIT - XEDIT and ISPF/PDF compatible editor for UNIX and Windows

S/REXX - REXX-compatible language for UNIX and Windows

S/REXX Debugger - Optional graphical debugger for **S/REXX** programs

Software AG Related Products:

ADAREORG - File reorganization tool for ADABAS

ADASTRIP - Data extraction utility for ADABAS

* **AUDITRE** - Generalized ADABAS auditing facility

* **AUTOLOADER** - ADABAS file automatic unload/reload/dump utility

* **CHART for NATURAL** - NATURAL application analysis and documentation tool

DBAUDIT - Data integrity verification utility for ADABAS

* **N2O** - NATURAL application change management system

* **N2O/3GL** - 3GL support within **N2O** for PANVALET, LIBRARIAN, ENDEVOR, and PDSs

PEEK - ADABAS file browsing utility

* **PROFILER for NATURAL** - NATURAL quality assurance and testing tool

QDUMP - Incremental backup utility for ADABAS

* **SECURITRE** - ADABAS and NATURAL security interface to RACF, ACF2, and TOP SECRET

* **TRIM** - ADABAS and NATURAL performance monitor

* Indicates TSI Products that are marketed for TSI by international affiliates

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