Tree·times

A Publication of Treehouse Software, Inc.

This Issue

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customercomments.shtml**

NATURAL Change Management for Open Systems:

EspControl Added to TSI Product Portfolio

by Mark Jones and Joseph Brady

Over the years we have been asked many times about providing a change management product for the UNIX and Linux platforms. With many Software AG customers looking at deploying or migrating applications onto lower-cost open systems, the market demand for such a product is significant and growing.

We are now pleased to announce that we have come to agreement with Cronus Consulting, of Pretoria, South Africa, to provide worldwide sales and marketing for **EspControl**, an application change-management product for NATURAL on open systems.

Since 1989, TSI has offered the original and market-leading mainframe-based NATURAL application change-management product, N2O. With **EspControl**, TSI is able to provide a similarly feature-rich, robust solution for customers who have applications running on NATURAL for Unix or Linux.

TSI Branches Out With a New Division
by Joseph Brady

TSI recently announced the creation of a new division, called Telemetree Systems. The initial focus of Telemetree will be to help bring new European technologies to North America and branch into areas such as business intelligence, enterprise reporting, data mining, and data analytics. Telemetree's strategy is to sign exclusive deals with European companies to distribute, market, and provide support services for their products in North America.

"Establishing the Telemetree division was the best route to take in order to help avoid dilution of our brand equity and to avoid any confusion in the marketplace," said **Wayne Lashley**, COO of Treehouse.

Wayne continues, "The goal is to find software that is being used in Europe but has yet to make it overseas."

Telemetree has already found their first product called **InfoZoom**, which comes from Bonn, Germany-based humanIT Software GmbH, a subsidiary of enterprise resource planning provider proALPHA Software AG.

"humanIT has had tremendous success selling the technology in the European market," said **Orion Wolff**, Executive Sales Manager at Telemetree Systems.

Free, On-line Demos of TSI Products

Would you like to see TSI products in action before you request a trial? To set up a live, on-line demonstration of any TSI product, simply fill out the short form on the Treehouse Software Web site at **www.treehouse.com/webexform.html**. All you need is an Internet connection and a current Web browser to see how TSI products work right on your PC screen.

Become a Beta Test Site for New TSI Product Releases

We are looking for current North American customers to become Beta test sites for new releases of TSI products. If you are interested in becoming a Beta test site, please fill out the short form at **www.treehouse.com/betasites.html**, and a TSI representative will contact you.

Find out the Latest on TSI Products

To find out about current versions of TSI products, compatibility (operating systems, languages, etc.), and support information for all of our products, view the TSI Product Status Matrix on-line at **www.treehouse.com/prodstatus.shtml**.

A New Face in the Treehouse

We are very pleased to welcome **Norbert Grüttner** to TSI. Norbert is an experienced and versatile developer with a wealth of experience relevant to TSI's core products. He spent 12 years with Software AG in Darmstadt and was in charge of development of SAG's "communication products" (e.g., COM-PLETE) in the 1990s.

We expect to have Norbert employ his expert skills primarily in development and support of our various Assembler-based products, but his knowledge and experience in other key areas like C, Unix, and DB2 will also be important for various other TSI products.

We wish Norbert all the best as the newest member of the TSI family.

TSI and the County of Sacramento Hosted Real-Time Data Integration Webinar

Recently, TSI and the County of Sacramento presented a Webinar featuring **Brian Richards**, Project Manager at the County of Sacramento, describing the County's mainframe-based Criminal Justice Information System (CJIS) and Microsoft SQL Server 2005-based Integrated Justice Information System (IJIS).

Brian showed how real-time integration between these platforms is accomplished through TSI's **DPSync**, and how this integration enables timely and accurate sharing of critical criminal justice information between stakeholder organizations.

Like many state and local governments, Sacramento County has had a long history with ADABAS, dating back to the late 1970s when the CJIS was created. CJIS is the County's core operational information system that supports multiple stakeholders such as the County's Sheriff's Department, Conflict Criminal Defenders, Coroner's Office, County Executive's Office, District Attorney's Office, Department of Health and Human Services, Department of Human Assistance, Probation Department, Public Defender's Office, and the Department of Revenue Recovery. Additionally, the Superior Court and Sacramento City Police Department participate in the IJIS Program.

The County's Office of Communications and Information Technology (OCIT) runs a 24x7 shop on behalf of hundreds of clients. ADABAS's reliability and performance is critical to meeting their service standards.

Beginning in the 1980s, and increasingly in the mid-to-late 1990s, stakeholders started developing their own departmental systems. They needed to do ad-hoc reporting and analysis, and lacking easy access to ADABAS data from the mainframe, they depended on OCIT programmers to write reports and extracts. This led to a backlog of requests and ongoing difficulty with obtaining sufficiently current data.

Now, with real-time data integration, thanks to **DPSync**, information is delivered where it is needed, when it is needed, and in the format it is needed–instantly.

Brian's presentation can be downloaded from the TSI Web site at: **www.treehouse.com/CountyOfSac.shtml**.

EspControl Added to TSI Product Portfolio *(continued from page 1)*

*"We're pleased to be able to offer a proven product like **EspControl**. We now have an extensive portfolio of products of interest to open-systems sites, including **NatQuery** and **NatCDC** for ADABAS data extraction and change data capture, **Chart for NATURAL** for generating application flowcharts, and the **S/EDIT** and **S/REXX** products for mainframe emulation."*

Mitch Doricich, TSI Sales Manager for Core Products

With offices in Pretoria, South Africa, privately-held Cronus Consulting specializes in the migration of applications to open-systems platforms. The company's experience in migration has led to its development of unique products (ESP Products) and special techniques, which offer world-leading migration solutions to open-systems customers. Having a well-respected technical team and superior technical expertise, the company is a complete solution provider with an infrastructure of consulting, support and education services to back up the software operation and ensure an efficient implementation, and optimal usage and operation of its software products.
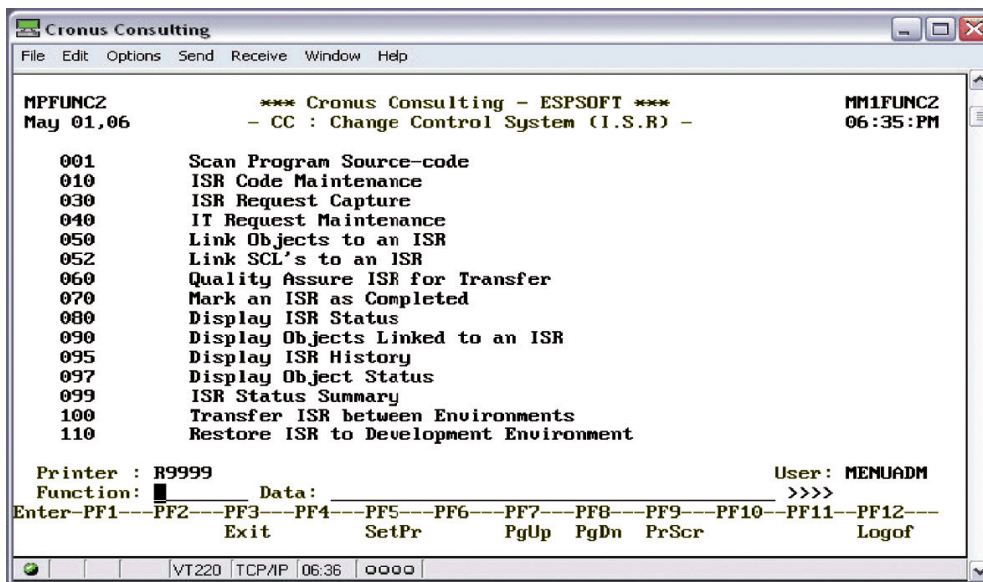
*"TSI's reach and reputation in the Software AG community enables us to expose **EspControl** to the worldwide open systems customer base. We look forward not only to many new sales of **EspControl**, but to have Software AG customers on open systems learn about the other products in the ESP line, and our consulting, education, and platform migration services."*

Hentie Pauley, Director of Cronus Consulting

A Brief Walk-through of EspControl's Functionality...

Once a user logs on, the **EspControl** menu will be displayed with all functions to which the user has access.

The following information is displayed on the menu screen:

```
Cronus Consulting
File  Edit  Options  Send  Receive  Window  Help

MPFUNC2                 *** Cronus Consulting - ESPSOFT ***              MM1FUNC2
May 01,06               - CC : Change Control System (I.S.R) -          06:35:PM

     001       Scan Program Source-code
     010       ISR Code Maintenance
     030       ISR Request Capture
     040       IT Request Maintenance
     050       Link Objects to an ISR
     052       Link SCL's to an ISR
     060       Quality Assure ISR for Transfer
     070       Mark an ISR as Completed
     080       Display ISR Status
     090       Display Objects Linked to an ISR
     095       Display ISR History
     097       Display Object Status
     099       ISR Status Summary
     100       Transfer ISR between Environments
     110       Restore ISR to Development Environment

  Printer : R9999                                              User: MENUADM
  Function: █         Data: _____    >>>>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
           Exit         SetPr      PgUp  PgDn  PrScr               Logof

        VT220  TCP/IP  06:36  □□□□
```

CC001 Source Code Scanner

This function is used to populate the **EspControl** object inventory. Information regarding the NATURAL object and its dependants is gathered during the source scan. This function should be executed for all new objects and whenever objects are added or removed to or from an existing program, subprogram, etc.

EspControl Overview

The 3-Part System:

1. ISR (Information Service Request) capture
2. Object selection and transfer
3. Various inquiry options on object and ISR level

The Capabilities:

- Multiple backups of Source and Object Code per environment as defined by the system administrator
- Transfer across physical machines
- Dependencies allow an object and all its dependents to be selected
- Automatic restore capability
- Back out
- Updating of the NATURAL buffer pool

The Change Control Environment:

Upon installation, the system Administrator specifies the NATURAL environments (these environments can reside on different physical machines) and define one as the master environment (the current Production environment or a copy of it).

Dynamic allocation of Change Control functions and security at the function level determine who has access to specific functions.

All multiple-choice fields are validated using a help-and-fill facility. If an entered field is incorrect, a window is displayed with the possible values. The correct value is selected from the list and entered into the corresponding field value.

```
MP10003              *** Cronus Consulting - ESPSOFT ***           18:38:34.2
MM10001                    Scan Program Source-code                2006/05/01
                                                                   MENUADM




              Enter library name..: █
              Start program.......: _____
              End program.........: _____
              Add Function to Menu: N




Direct Command: _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--PF10--PF11--PF12---
              Quit  Main                                  PrScr        Logof
```
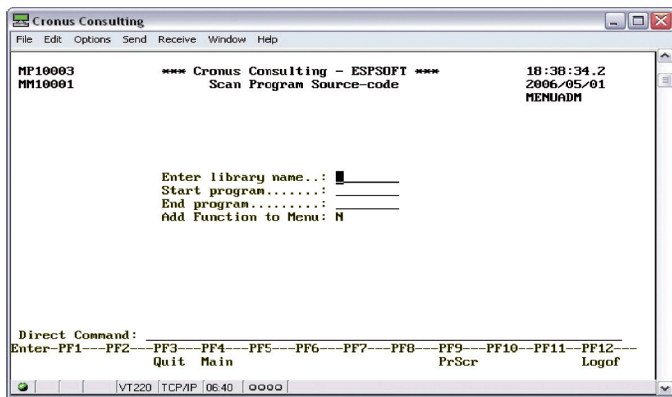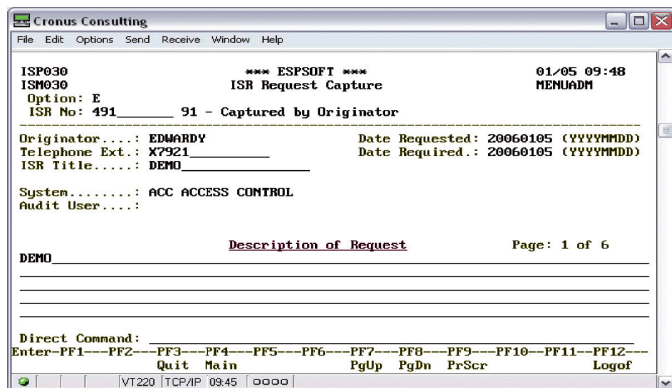
The following objects are detected during the scan of the source code:

- GLOBAL DATA AREAS (GDA)
- LOCAL DATA AREAS (LDA)
- CALLNAT statements
- MAP Statements
- FETCH statements
- COPYCODE

CC030 ISR Request Capture

This function is used to maintain an Information Service Request (ISR). The ISR should be completed either by the business analyst responsible for the request or by the developer on behalf of the originator of the service request.
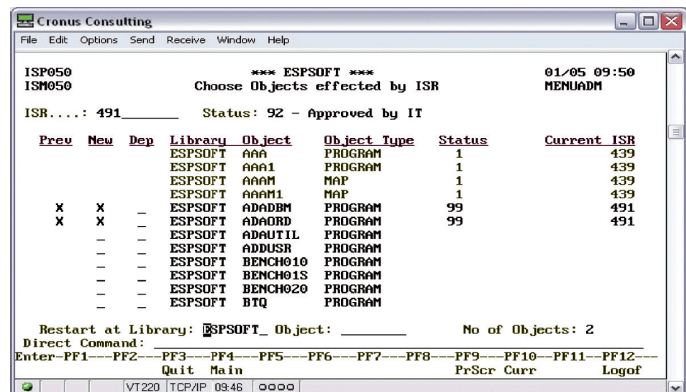
```
ISP030               *** ESPSOFT ***                 01/05 09:48
ISM030               ISR Request Capture              MENUADM
 Option: E
 ISR No: 491_____  91 - Captured by Originator
---------------------------------------------------------------------
Originator....: EDWARDY          Date Requested: 20060105 (YYYYMMDD)
Telephone Ext.: X7921_____  Date Required.: 20060105 (YYYYMMDD)
ISR Title.....: DEMO_____

System........: ACC ACCESS CONTROL
Audit User....:

              Description of Request        Page: 1 of 6

DEMO_____
  _____
  _____
  _____
  _____
  _____
Direct Command: _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--PF10--PF11--PF12---
              Quit  Main              PgUp  PgDn  PrScr           Logof
```

Function Options:

A - Add ISR | **C** - Change ISR | **E** - Enquire on a ISR
When adding a new ISR, the system will automatically generate an ISR number.

CC050 Link Objects to an ISR

This function is used to select all objects that will form part of the requested ISR. Only objects that have been added using the function CC001 (Source Code Scanner) will be available for selection. If a new object is created and does not appear on the list of objects displayed, the Source Code Scanner must be run for the particular objects that will make it available for selection.

```
ISP050               *** ESPSOFT ***                 01/05 09:50
ISM050              Choose Objects effected by ISR     MENUADM

ISR....: 491_____   Status: 92 - Approved by IT

  Prev  New  Dep  Library  Object     Object Type   Status   Current ISR
                   ESPSOFT  AAA        PROGRAM          1          439
                   ESPSOFT  AAA1       PROGRAM          1          439
                   ESPSOFT  AAAM       MAP              1          439
                   ESPSOFT  AAAM1      MAP              1          439
   X    X    _      ESPSOFT  ADADBM     PROGRAM         99          491
   X    X    _      ESPSOFT  ADAORD     PROGRAM         99          491
   _    _    _      ESPSOFT  ADAUTIL    PROGRAM
   _    _    _      ESPSOFT  ADDUSR     PROGRAM
   _    _    _      ESPSOFT  BENCH010   PROGRAM
   _    _    _      ESPSOFT  BENCH01S   PROGRAM
   _    _    _      ESPSOFT  BENCH020   PROGRAM
   _    _    _      ESPSOFT  BTQ        PROGRAM
   Restart at Library: ESPSOFT_ Object: _____     No of Objects: 2
Direct Command: _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--PF10--PF11--PF12---
              Quit  Main                              PrScr Curr       Logof
```
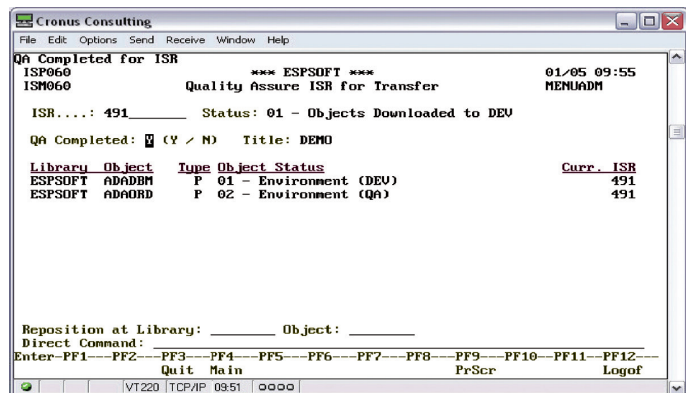
Once the ISR number has been entered, a list of all objects will be displayed that can be linked to the ISR. If an object is currently linked to another ISR, it will still be displayed but will not be available for selection.

Objects can now be linked, and the number of objects that are currently linked to the ISR will be updated during object selection.

By marking the Dependents column for a given object, all dependents for the selected object will be selected automatically (e.g., If the Object contains a FETCH and a CALLNAT, both objects will be selected and form part of the ISR).

CC060 Quality Assure ISR for Transfer

This function is used to quality assure an ISR to be transferred to the next environment. Once an ISR has been quality assured, *Transfer ISR between Environments* is used to transfer all objects linked to the ISR. By providing separate functions for quality assurance and ISR transfer, the project leader is freed from doing the physical transfer that can be a timely exercise for an ISR with many objects linked to it.

```
QA Completed for ISR
ISP060               *** ESPSOFT ***                 01/05 09:55
ISM060          Quality Assure ISR for Transfer        MENUADM

  ISR....: 491_____   Status: 01 - Objects Downloaded to DEV

QA Completed: Y (Y / N)   Title: DEMO

Library  Object    Type Object Status                   Curr. ISR
ESPSOFT  ADADBM     P   01 - Environment (DEV)               491
ESPSOFT  ADAORD     P   02 - Environment (QA)                491




Reposition at Library: _____  Object: _____
Direct Command: _____
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9--PF10--PF11--PF12---
              Quit  Main                              PrScr            Logof
```

CC100 Transfer ISR between Environments

This function is used to transfer all objects linked to an ISR between the defined environments. Any user that has access to this function can transfer an ISR, security is controlled with CC060 - Quality Assure ISR for Transfer.

EspControl Added to TSI Product Portfolio *(continued from page 4)*

According to the current status of an ISR, the system will determine to which environment objects must be transferred.
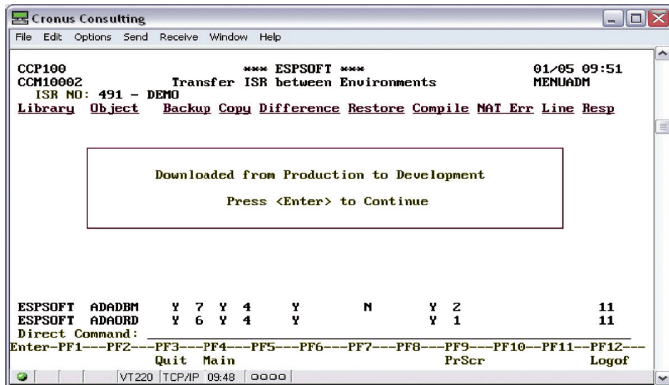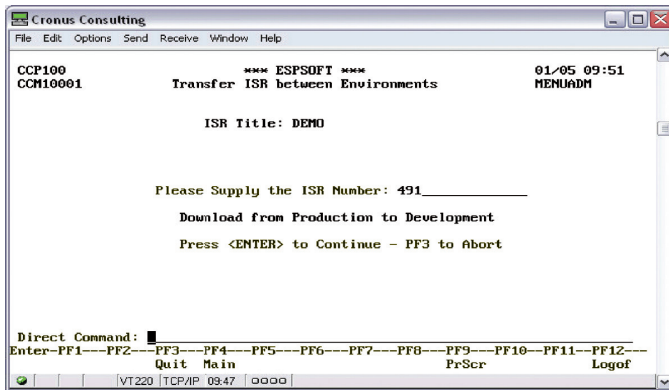

> The following attributes are displayed for each object transferred:

- Library
- Object
- Backup
- Copy
- Difference
- Restore
- Compile
- Nat Error
- Response

If an error should occur during the transfer process, all objects that form part of the ISR will be restored back to the version prior to the transfer process.

CC070 Mark an ISR as Completed

This function is used to change the status of an ISR to complete. Once an ISR's status has been changed to completed, all objects linked to that ISR will once again be available for selection.
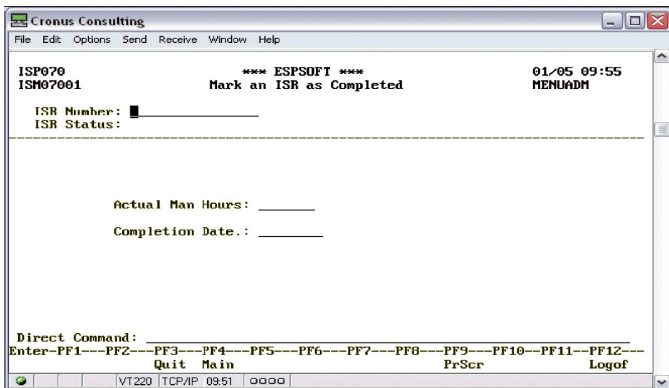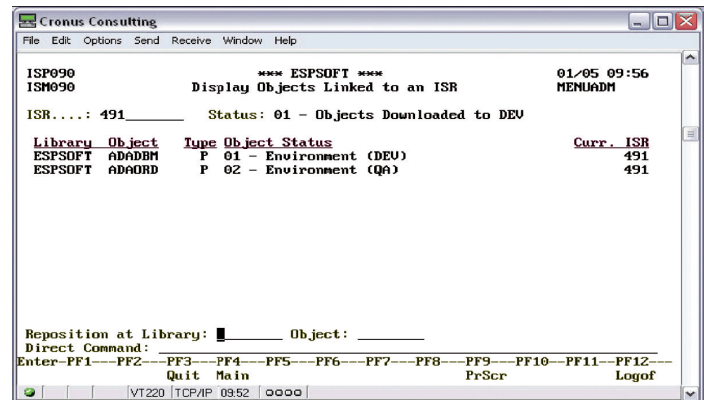

If the ISR has not been transferred back to the master environment, a window will be displayed indicating that all objects will be restored from the backed up version.
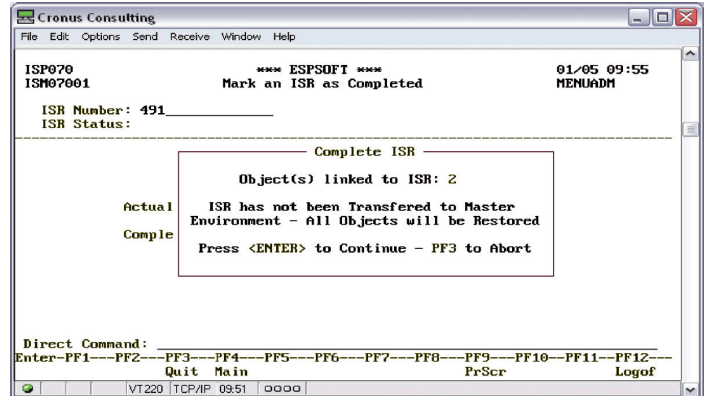

CC090 Display Objects Linked to an ISR

This function is used to display the status of the ISR and all the objects linked to the ISR.

CC300 Initial Source Code Scanner

This function is used to populate the **EspControl** object inventory and update the "new-object" indicator to "old" on all the objects on all the environments. This function should only be executed during the installation procedure of **EspControl**, or when duplicate copies are made of production libraries on development.
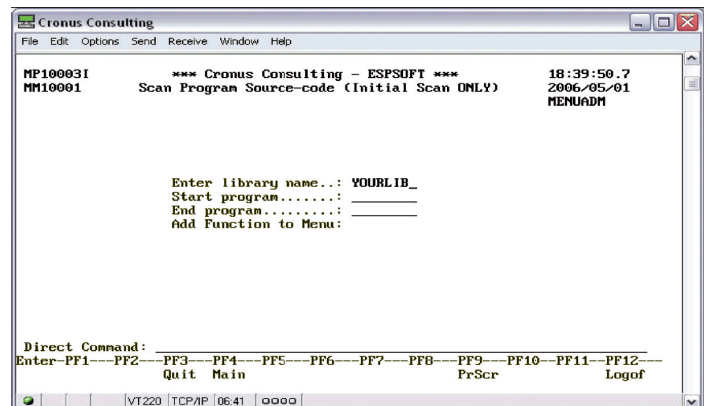
To set up a free, 30-day trial, or for more information on **EspControl**, contact TSI. •

Mainframe to Linux and Back

By Hans-Peter Will

Treetimes #1 featured an article called "Minimal Downtime at Data Transfer Cutover." It describes how **tRelational/DPS** can be used in a one-way ADABAS-to-RDBMS migration such that cutover to the new system happens with minimal—perhaps zero—downtime.

Recently, a European customer planning to migrate from mainframe ADABAS to ADABAS on Linux spoke to us about similar, but more complex, circumstances. The customer is seeking a minimum-downtime solution for their one-way migration, while having the ability to "flip back" to the mainframe -- even after a period of processing on Linux, in case of unforeseen events.

As is the case in virtually any ADABAS data migration scenario, TSI has the answer. **NatQuery** and **NatCDC**, available for any environment where ADABAS/NATURAL runs, provide the required capability for this customer.

...our 11 years of ADABAS replication experience assures you of robust, proven products and know-how.

The first step is to do a full synchronization of the mainframe ADABAS data into the Linux database, a task easily handled by **NatQuery**. Using an intuitive Windows-based GUI, the **NatQuery** user quickly generates all components—programs, JCL and utility control parameters—required to extract and transfer the data between the platforms. Either the live source database or a static source (such as an ADASAV utility backup) can be specified for extraction.

The user then navigates **NatCDC**'s GUI to generate the required components to implement ongoing change data capture (CDC) out of the mainframe ADABAS PLOG, and have a **NatQuery**-generated program apply those changes to the target Linux data. The new version of **NatCDC** provides for this to be done for all files in parallel, greatly improving efficiency.

CDC can be executed indefinitely up to the point of cutover. At that time, the mainframe ADABAS updates are stopped, and the final PLOG's data applied to the Linux target—a process that normally takes bare minutes. Immediately, the Linux applications can commence processing.

But what about reverting back to the mainframe? The beauty of this solution is that the process is exactly the same, but in reverse. **NatCDC**-generated objects process the Linux PLOG and apply the changes back to the mainframe database. If at any point in time the customer decides to go back to the mainframe as the "master", the Linux applications need simply be stopped, the last PLOG's data applied to the mainframe target, and application processing commenced on the mainframe. The process can be repeated time after time.

When it comes to answers to your ADABAS replication requirements, look to the experts at TSI—where our 11 years of ADABAS replication experience assures you of robust, proven products and know-how. •

Vom Mainframe zu Linux und zurück

von Hans-Peter Will

Die Treetimes #1 beinhaltete einen Artikel über "Minimal Downtime at Data Transfer Cutover." Hier wird der einmalige Übergang mittels **tRelational/DPS** von ADABAS zu einem RDBMS mit minimalen – möglicherweise sogar absolut ohne – Auszeiten beschrieben.

Kürzlich sprach ein europäischer Kunde mit uns über eine geplante Migration von ADABAS Mainframe zu ADABAS unter Linux. Diese war ähnlich, jedoch komplexer in den Anforderungen. Gesucht wurde eine Lösung mit einer minimalen Ausfallzeit und der Möglichkeit nach der einmaligen Migration wieder auf den Mainframe zurückzukehren. Diese Option sollte, auch noch nach einer längeren Laufzeit, unter Linux zur Verfügung stehen können.

Wie auch zu vielen anderen Anliegen bezüglich der ADABAS Datenmirgration, hat TSI auch hierzu eine adäquate Antwort: **NatQuery** und **NatCDC**. Verfügbar unter jeder ADABAS/Natural Umgebung stellen diese Tools die geforderten Funktionalitäten bereit.

Als erster Schritt muss der ADABAS Mainframe Datenbestand komplett in die Linux Datenbank übertragen werden, eine Aufgabe die durch **NatQuery** leicht vollzogen wird. Über das windowsbasierte GUI generiert der **NatQuery**-Anwender schnell und intuitiv alle nötigen Komponenten – Programme, JCL und Utility Kontrollparameter – für die Extraktion und den Transfer der Daten zwischen den Plattformen. Die Extraktion kann wahlweise aus der aktiven Datenbank oder dem ADASAV Backup-Datenbestand erfolgen.

Der Anwender nutzt das **NatCDC** GUI zur Generierung der benötigten Komponenten um das Change Data Capture (CDC) aus dem Mainframe ADABAS PLOG aufzubereiten. Ein aus dem **NatQuery** generiertes Programm trägt die Änderungen in die Zieldatenbank unter Linux ein. In der neuen Version verfügt **NatCDC** über eine noch effizientere, parallele Verarbeitung dieser Dateien.

CDC kann bis zur Umschaltung auf das neue System betrieben werden. Zum Zeitpunkt der Umstellung werden die Mainframe ADABAS Updates eingestellt und die letzten PLOG-Daten zum Linuxziel übergeben; ein Prozeß der nur wenige Minuten in Anspruch nimmt. Unmittelbar danach können die Applikationen auf der Linux mit der Verarbeitung auf der Basis der aktuellen Daten beginnen.

Doch, wie gestaltet sich die Rückkehr zum Mainframe? Das Besondere an dieser Lösung ist, dass der Prozess der Gleiche ist, nur umgekehrt. **NatCDC** generierte Objekte verarbeiten das Linux PLOG und übertragen die Änderungen in die Mainframe Datenbank. Wenn zu irgendeinem Zeitpunkt der Kunde die Entscheidung trifft auf das Mainframesystem zurückgehen zu müssen, so muß die Linux Applikation lediglich angehalten werden, die letzten dort erzeugten PLOG-Daten werden übermittelt und die Mainframeapplikation kann sofort wieder genutzt werden. Dieser Vorgang kann nach Bedarf zu beliebigen Zeiten wiederholt werden.

Ist die Zeit für Ihre ADABAS Datenreplikation gekommen, so kontaktieren Sie die TSI Experten. Unsere 11 jährige Erfahrung im Bereich der ADABAS Datenreplikation sichert Ihnen robuste ausgereifte Produkte und ein fundiertes Know-how. •

TSI Branches Out With a New Division *(continued from page 1)*

"We are on the lookout for those types of companies who are seeking a gateway or a channel into the U.S."

Visualize Your Data

InfoZoom is designed to help businesses analyze and display large amounts of information at once, while also being able to examine tiny details. The software takes information from a database or Excel spreadsheet and helps to identify relationships between data, zeroing (or zooming) in on specific pieces of information.

Visualize your data on a single screen... no more scrolling!

Create reports instantly!

InfoZoom®

"**InfoZoom** allows you to drill down in the data set," Wolff said. "It's like finding the needle in a haystack. However, with **InfoZoom**, that needle takes only a few mouse-clicks to find!"

Customers are Instantly Seeing the Value

One customer that is evaluating **InfoZoom** immediately found value with their CRM migration and financial controlling. Their organization is in the process of migrating from their current CRM system to Microsoft CRM, and they want their team to use **InfoZoom** for identifying data quality/integrity issues.

Another customer wants their market analysis and customer research team to use **InfoZoom** in the analysis of their "sell" data. Basically, they analyze sales transactions, purchasing trends, and customer data using a combination of Oracle Discover, Excel, and Access. **InfoZoom** will add tremendous value by providing ad-hoc analysis capabilities on top of what they're already doing.

During our demonstration, the customer asked if they could send us their data for analysis, so they could see **InfoZoom** using their current analysis methodology. Sure! We certainly realize the value to a potential customer in seeing a custom demo using their own data. Just contact **Orion Wolff** at **owolff@telemetree.com** or **(412) 741-1944 x103** and he'll arrange for you to send us some data along a series of questions that you would typically address using your current analysis.

We can show you how easy it is to find that "needle" when you contact Telemetree Systems for a demonstration of **InfoZoom**.

Share your Findings

When you're ready to share your research and analysis results with your staff and colleagues, simply pass them on in the form of a report or an **InfoZoom** diagram. Once you have all of your reports and diagrams set up, one mouse-click lets you update any key figures that have changed. •
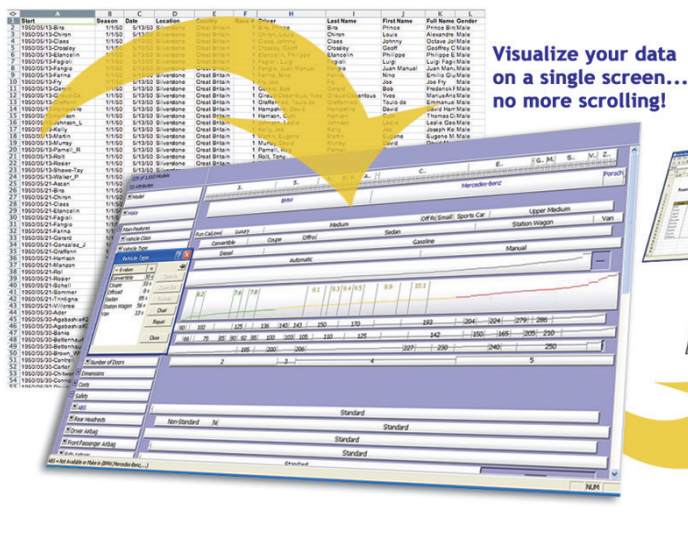
Interest in Telemetree Systems is Growing

Telemetree currently has several potential customers trialing **InfoZoom**. Additionally, after only a few weeks of the new division announcement, significant interest in Telemetree and **InfoZoom** is already occurring, with articles in the *Pittsburgh Business Times* and the Pittsburgh Technology Council's *"T.E.Q."* magazine (scheduled for their January/February issue).

The Telemetree press release that was sent out on November 2nd has also been picked up nationally in various publications. To learn more about Telemetree, **InfoZoom**, and any new product announcements, be sure to visit the Web site at **www.telemetree.com**.

Treehouse Software Products

ADABAS-to-RDBMS Data Transfer:

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

DPS X-Link - Instant XML-based read/write access to ADABAS

DPSync - Real-time ADABAS-to-RDBMS data propagation (CDC) software product set

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.

NatQuery - GUI-based tool that intelligently generates NATURAL code to handle all of the complexities of data extraction from ADABAS

NatCDC - Add-on to NatQuery designed to create immediately-usable data out of the ADABAS PLOG

Software AG Related:

ADAMAGIC - Tool for converting mainframe ADABAS files into ADABAS for UNIX/Linux/Windows, flat file, or comma-delimited formats

ADAREORG - File reorganization tool for ADABAS

ADASTRIP - Data extraction utility for ADABAS

AUDITRE - Generalized ADABAS auditing facility

CHART for NATURAL - NATURAL application analysis and documentation tool

EspControl - Change control system for NATURAL on open systems

N2O - NATURAL application change management system

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

PROFILER for NATURAL - NATURAL quality assurance and testing tool

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

TRIM - ADABAS and NATURAL performance monitor

TSI is a DataMirror DataWorld partner, and is authorized to market the full line of DataMirror products, including:

Integration Suite™ - Combines all of DataMirror's real-time integration software and global services.

Transformation Server™ - Real-time multi-platform data integration and transformation with zero-programming required.

iCluster™ - Manage clustered iSeries environments.

LiveAudit™ - Capture all data that is inserted, updated, or deleted to create real-time audit trails.

PointBase™ - Java relational database, mobility and synchronization products.

iReflect™ - Mirror ORACLE database transactions in real-time from the primary system to the recovery system.

Transformation Server/ES - Detects events as they occur in mission-critical production applications and creates useful business information to feed into the message queues of leading EAI, BPM, and SOA environments.

DB/XML Transform™ - Powerful Java-based, XML-driven engine for bi-directional data transformation between XML, EDI, database and text formats.

Constellar® Hub - Powerful ORACLE-based EAI tool.

UNIX:

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

Telemetree Systems
A branch of Treehouse Software, Inc.

InfoZoom - Data visualization tool designed to help businesses analyze and display large amounts of information at once, while also being able to examine tiny details

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