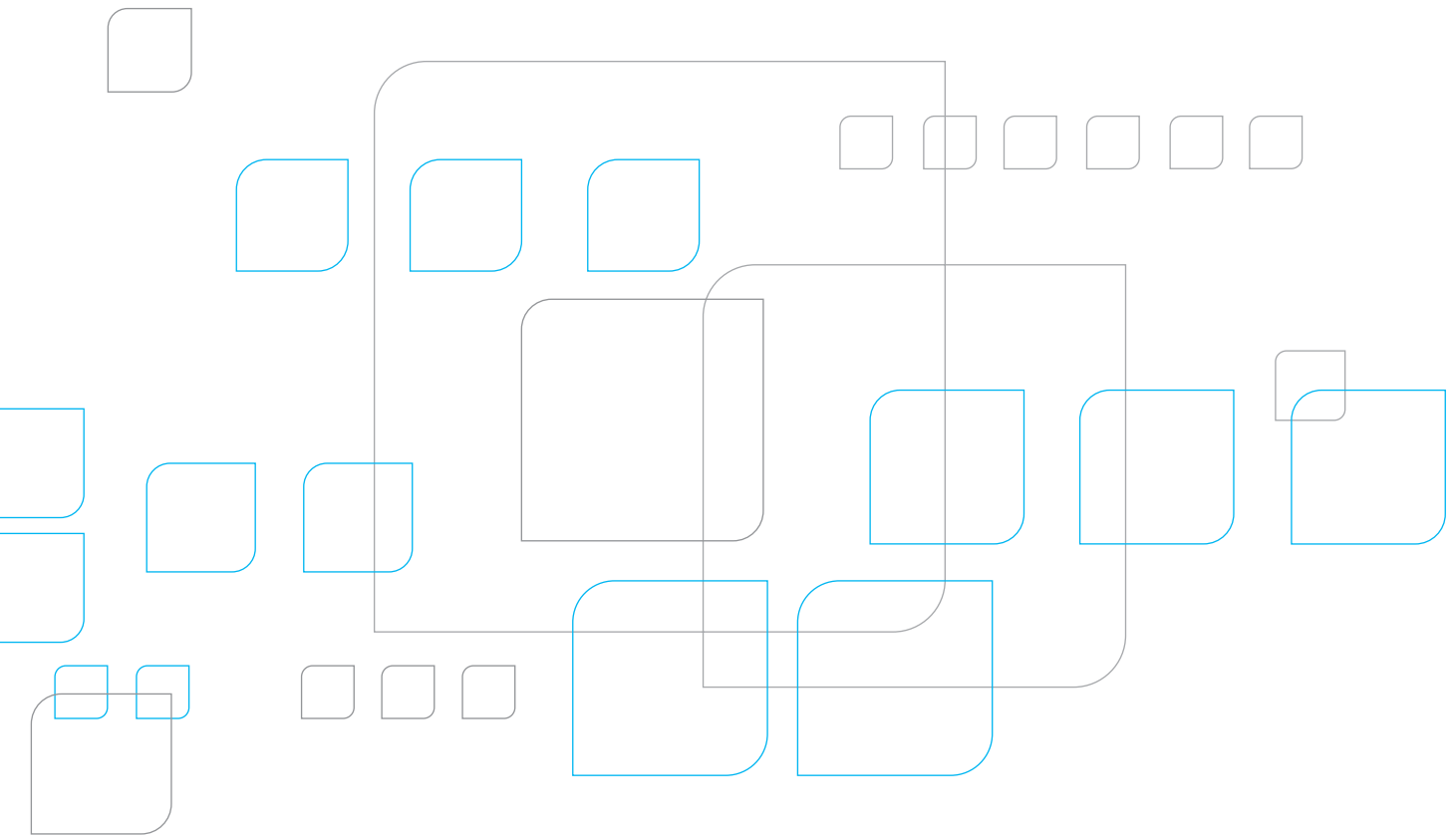


ADABAS & NATURAL SUCCESS STORIES



HOW LEADING ENTERPRISES USE CUSTOM
APPLICATIONS TO COMPETE IN A DIGITAL WORLD

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HOW LEADING ENTERPRISES USE CUSTOM APPLICATIONS TO COMPETE IN A DIGITAL WORLD

Organizations around the globe and across diverse industries have used Adabas & Natural to power their businesses for decades. From processing financial transactions to managing warehouses, these custom mission-critical applications provide competitive differentiation and reliably high levels of performance, availability and security.

Today, these applications play a significant role in taking advantage of new digital opportunities brought on by the Web, mobile, big data, cloud and the Internet of Things. This booklet is a testament to how organizations have achieved closer customer connections, faster processes, increased efficiencies and cost savings by modernizing their Adabas & Natural systems and moving them forward into the next decade of the digital revolution with Software AG.

Read more success stories online at:

www.SoftwareAG.com/customers



— **Guido Falkenberg** | Senior Vice President, Global Adabas & Natural Customer Innovation & Marketing,
Software AG

Country: United States
Industry: Insurance, non-profit
Size: \$1.2 billion+ in assets
System: Policy & member administration
Platform: UNIX®



MEMBERSHIP TAKES OFF WITH SELF-SERVICE MOBILE PORTAL

OBJECTIVES

- Improve customer engagement
- Increase return on assets to stay competitive
- Provide self-service to members

RESULTS

Since AAFMAA provided members direct self-service access to its core policy system from the Web and mobile devices, membership has taken off. AAFMAA now manages more than a billion dollars in assets on its Adabas & Natural system with only 75 people on staff in its entire organization. Because costs are so well managed thanks to a move to UNIX, AAFMAA has a superior credit rating of 6 percent, providing annual growth for its members' assets far above today's market rates—keeping AAFMAA well ahead of the competition.



COSTS **REDUCED**
50%
WITH MOVE TO UNIX



MOBILE
SELF-SERVICE
to 120,000
USERS



AGILE
DEVELOPMENT
DRAWS
TALENT

“NaturalONE opened the door for AAFMAA to recruit developers, right out of college. Since most universities teach with Eclipse™, students already know the NaturalONE environment. We have been able to staff up our team to provide continuity for the long run.”

— **Amarish Pathak** | American Armed Forces Mutual Aid Association (AAFMAA) Chief Information Officer

Country: United States
 Industry: Government
 Size: Largest state IT budget
 System: Census, industry and consumer statistics, tax collection, state resource planning and transactions
 Platform: Mainframe



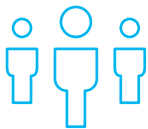
TURNING DATA INTO KNOWLEDGE WITH REPLICATION AND SERVICES

OBJECTIVES

- Increase citizen engagement to improve public safety, health and education
- Ensure agencies and citizens can access data from any repository, anytime, securely
- Process billions of transactions daily on a scalable, stable and secure platform
- Enable agencies to create new high-value business services

RESULTS

California Department of Technology (CDT) provides information technology services to state, county, federal and local government entities throughout the largest U.S. state and the eighth largest economy in the world. The department relies on the mainframe for bulk processing of census data, industry/consumer statistics, tax collection data, state resource planning data and billions of transactions. By replicating data stored in massive mainframe repositories across disparate departments and integrating bi-directionally with process applications, CDT delivers one source of truth. Agencies can now collaborate across lines and create high-value business services quickly by re-using existing application functions, turning data into knowledge that citizens and workers can use confidently.



SERVING
38.8
 MILLION CITIZENS



PROCESSES
BILLIONS
 OF TRANSACTIONS
 EACH WEEK



REAL-TIME
REPLICATION
 BETWEEN MAINFRAME &
 PROCESS APPLICATIONS

"With Adabas & Natural, we have a stable, world-class platform that can handle the processing of billions of transactions on a daily basis from which we can harness the power of mobile and cloud technologies in a secure environment."

— **Rob Schmidt** | Chief of the California Department of Technology's Office of Technology Services

Country: France
Industry: Finance
Size: 75 billion euros in gross production
System: Customer call center and loan guarantee
Platform: Mainframe



CUSTOMER SERVICE EXCELS WITH WEB-BASED UI

OBJECTIVES

- Quickly meet the needs of customers—more than 200 banks with 7 million borrowers
- Optimize customer call center processing by improving the end-user experience
- Replace green screens with a modern Web user interface

RESULTS

Crédit Logement maintains market leadership with unmatched transaction processing performance. The company processes up to 5,000 loan guarantees from more than 200 banks every day. In addition, customer service personnel quickly respond to customer requests thanks to a new modern Web interface where information is now found on only two screens instead of more than 50. The simpler, more intuitive interface also makes it faster to train new employees—what took a month to learn is now accomplished in less than two weeks.



ON-BOARD STAFF IN
DAYS
INSTEAD OF **WEEKS**



UP TO
5,000
GUARANTEES
FROM 200 BANKS A DAY



1.05
BILLION
COMMANDS EACH DAY

"Scalability is very important to us. Our Adabas & Natural system gives us a competitive advantage—our competitors have inferior performance because they can't support the volume of credit we can."

— **Michel Lavernhe** | CIO, Crédit Logement

Country: Canada
 Industry: Non-profit, environmental
 Size: 110,799 grassroots supporters and 5,289 volunteers
 System: Finance, HR, conservation, fundraising, A/P, warehouse
 Platform: Linux®



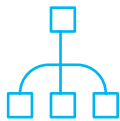
SAVING MORE BY INTEGRATING WITH ONLINE RESOURCES

OBJECTIVES

- Conserve wetlands and other natural spaces for waterfowl, wildlife and people
- Engage and mobilize stakeholders with effective fundraising, retail and advocacy campaigns to maximize awareness and support
- Manage projects in support of a conservation mission
- Move apps to the Web and integrate with third-party applications

RESULTS

To conserve wetlands and other habitats, Ducks Unlimited Canada (DUC) administers fundraising, retail and advocacy campaigns and manages projects using software built on Adabas & Natural. Using NaturalONE, DUC quickly moved its apps to the Web—85 percent of the HTML code needed was auto-generated with models, and wireframing is used for prototyping new features. Powerful plug-ins integrate with Google Maps™ mapping service, Esri® Geographic Information System, content management systems and other third-party tools—enabling its core app to do more. By simply integrating its Natural application with a mailing system, DUC reduced bounce-backs by 55 percent, improving fundraising campaigns.



AUTO-GENERATED
85%
 OF HTML CODE



PLUG-INS
 SIMPLIFY
 INTEGRATION



REDUCED
 BOUNCE-BACKS BY
55%

"When our UPS feed came back on after being knocked out by a lightning strike, Adabas came right back up. You don't get that with every software product. We take for granted that we will never lose data because Adabas is just going to work."

— **Steve Woods** | Software Development Manager, Ducks Unlimited Canada

Country: United States
Industry: Energy
Size: \$4.6 billion market cap (NYSE: ENBL)
System: Pipeline gas management
Platform: UNIX



RELIABLE HIGH-SPEED TRANSACTION PROCESSING IS BUSINESS DIFFERENTIATOR

OBJECTIVES

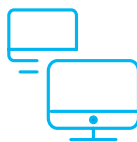
- Maintain ultra-high system availability to avoid regulatory fines
- Seamlessly move platforms as companies in the industry merge
- Quickly modify capabilities to respond to changing requirements

RESULTS

Enable Midstream manages customer contract agreements and the daily transmission of 8.4 billion cubic feet of gas across more than 10,000 miles of pipeline with its Adabas & Natural Pipeline Gas Management System (GMS). The system smartly rebalances gas distribution to make sure there is enough volume to meet demand by using Web services to interface with third-party app meters, which are read by satellite feeds. Pipeline GMS keeps pace with change, moving from platform to platform as company mergers dictate, while still maintaining ultra-fast performance and high availability.



BALANCES
8.4 BILLION
CUBIC FEET OF
TRANSPORT
CAPACITY PER DAY



ONLY
1
DBA



MANAGES
~10,000
MILES OF PIPELINE

"Midstream business users are especially pleased with our ability to quickly modify the Natural applications to address their change requests. Developers work fast with the straightforward procedural language of Natural."

— **James Gilpin** | Senior IT Manager, Enabled Midstream Partners

Country: United States
 Industry: Education, software
 Size: \$2.7 billion, private
 System: Warehouse
 Platform: Mainframe



REAL-TIME WAREHOUSE SYSTEM SCALES WITH EXPONENTIAL GROWTH

OBJECTIVES

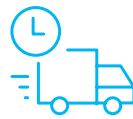
- Continue to build business on reputation of quality records
- Scale with ever-increasing business growth
- Maintain immediate response time for online systems
- Leverage Web services and EDI to interface with vendors, customers and third-party apps

RESULTS

Follett School Solutions' warehouse distribution application supports specialized processes (from order entry to packing and shipping), communicates with the conveyer system every minute and delivers immediate response times. It is so scalable that exponential growth has no impact on performance. Transaction processing happens so fast that a Web service can take an order from a publisher, deliver it to the mainframe and push back inventory status in real time. Follett serves more than half the students in the U.S. with a presence in more than 148 countries.



SCALABLE DATABASE
GROWTH
 700+ BILLION RECORDS
 CONSISTENT PERFORMANCE



SUBSECOND
 RESPONSE
 TIME



SECURELY PROCESSES
261M
 COMMANDS PER DAY

"Warehouse consultants told us they couldn't do anything for our McHenry distribution system based on Adabas & Natural—it's as efficient as it gets."

— **David Walker** | Director of IT Operational Systems, Follett School Solutions

Country: United States
Industry: Government
Size: \$2.2 billion in revenue
System: Citizen services, including driver, vehicle and motor carrier operations
Platform: Mainframe



PROGRESSIVE WEBSITE DELIVERS CITIZEN SELF-SERVICES

OBJECTIVES

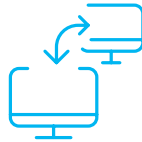
- Provide citizens online services to comply with state laws and regulations
- Process compliance issues with a multitude of local and federal departments and agencies
- Improve the safety of Virginia's highway system by accurately collecting and managing transportation data

RESULTS

Virginia's Department of Motor Vehicles (DMV) provides online transactions and citizen services to more than 6.2 million licensed users through what is considered one of the most progressive websites of any DMV in the U.S. Virginia DMV collects \$2.2 million in revenue using its core system to provide licensing, registration and titling for all drivers and vehicles in the state of Virginia. To process compliance issues related to court orders, insurance monitoring and driver safety, Virginia DMV re-uses services to tie in more than 75 applications from across the state and federal government.



COLLECTS
\$2.2M
REVENUE ANNUALLY



75+
APPLICATION
INTEGRATIONS



6.2+
MILLION
LICENSED USERS

"For 25 years, Virginia DMV has easily updated the same database and application system to meet changing regulations. Today, the system is modern and integrated with a multitude of systems and external users. Through it all, Adabas & Natural are always reliable, fast and secure."

— **Pam Schwartz** | Database Administrator, VA DMV

Country: Germany
 Industry: Insurance
 Size: 220 million euros annual revenue;
 Insures 160,000
 System: Insurance administration
 Platform: Linux®



YOUNG DEVELOPERS EMBRACE NATURAL

OBJECTIVES

- Connect Adabas & Natural system to a more modern world, including mobile
- Maintain and build upon core insurance information system to support business objectives (such as customer management, claims processing and invoicing)
- Publish business logic and integrate core application with the rest of infrastructure to support workflow
- Attract and retain young developers for Natural

RESULTS

While Alte Oldenburger has been providing private health insurance since 1927, there is nothing old about how it does business. Using webMethods Integration Server, Alte Oldenburger unlocked the logic hidden in its Linux®-based Natural system and publishes it to document management, print management and other workflow systems. Customers can now use a mobile app to take a photo of their doctor's bill and send it via the Internet to the company where it is then automatically processed. Alte Oldenburger attracts and retains young developers—medium age is 34 with half in their 20s—through a robust training program that teaches C#, Ruby, Java® and predominantly Natural. Developers see firsthand how easy and fast Natural is to use. For example, only one line of code is needed in Natural to access a database versus multiple lines of code for Java to reach an Oracle® table. Eight of Alte Oldenburger's 20 developers joined in just the past five years.



34
MEDIUM AGE OF
PROGRAMMERS



AGE OF YOUNGEST
PROGRAMMER
17



20
NATURAL
DEVELOPERS

"Natural is concise—you can do very much with very little code. The statements read like sentences making the code easy to understand. You just can't do that with any other language."

— **Stefan Macke** | Software Architect, Alte Oldenburger

Country: Israel
Industry: Finance
Size: Market capitalization
Equities: \$228 billion; Bonds: \$225 billion
System: Clearing & settlement
Platform: Linux®



LINUX® RE-HOST SAVES COSTS FOR MISSION-CRITICAL APPS

OBJECTIVES

- Stay at the forefront of technology in order to reduce risk, improve capabilities and achieve non-stop operations
- Eliminate reliance on mainframe specialists
- Reduce indirect mainframe costs (i.e., storage, data center)
- Migrate from mainframe to less expensive Linux platform

RESULTS

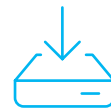
The Tel Aviv Stock Exchange (TASE), the only stock exchange in Israel, offers equities and derivatives trading, clearing and settlement, indice calculations, data dissemination and more. Its clearing and settlement system, based on Adabas & Natural, processes 300,000 transactions per day and supports B2B Web activity. TASE seamlessly moved the existing logic of 10,000 Natural programs and Adabas databases from the mainframe to Linux, where its trading system resides. This move eliminated TASE's need for limited mainframe skills, reduced costs and minimized risks while keeping the advantages of a tailored-made, mission-critical application. TASE expects to recover the migration costs in less than three years and is already seeing improved programmer productivity with the introduction of NaturalONE.



\$450 B
MARKET
CAP



300,000
TRANSACTIONS
PER DAY



10,000
NATURAL PROGRAMS
MOVED TO ECLIPSE™

"The mainframe presented some limitations that Linux could overcome. We chose to keep Adabas & Natural in our move to Linux because it would be easier to port existing logic and eliminate some of the risks. We will continue using Adabas & Natural as we see a good connection between new features—including cloud and mobile—and the new world."

— **Eldad Hershtig** | H-E-Consulting, Former CIO of Tel Aviv Stock Exchange

Country: Germany
 Industry: Travel
 Size: 9+ billion euros in sales, 20+ million transactions annually,
 22 million travelers
 System: Reservation system
 Platform: Linux®



BIG DATA TAKES OFF THANKS TO MODERNIZATION

OBJECTIVES

- Migrate to less expensive Linux® platform
- Move a business worth €9 billion annually to the Web—with completely new interfaces, menu structures and business functions
- Seamlessly integrate major travel systems (e.g., Amadeus®, Sabre®, Travelport®) with back-office systems (e.g., SAP®, Oracle®, CRM)
- Provide travelers real-time alerts and advisories
- Attract new customers, enter new markets and move into new industries

RESULTS

travelbasys, the leading provider of software in the European travel industry for 40+ years, processes 2 million accounting transactions per day for more than 1,250 companies. Its core Adabas & Natural system (called RBS) links reservation processes with back-end accounting, CRM and archiving systems with webMethods EntireX. Developers quickly transformed the 3270-based mainframe application into a Web application—without having to change the source code—using NaturalONE. With a new Web interface, moving the system to Linux was seamless to users. More than 43,000 software objects were transferred to Eclipse™ in only eight months. Thanks to this modernization approach, travelbasys now leverages Software AG's Digital Business Platform to tap into "smart data" (analysis of social networks like Twitter®, Instagram® and official sources) to provide real-time alerts and travel advisories to 22 million travelers—helping make big data affordable to small companies.



REAL-TIME ALERTS TO
22M
 TRAVELERS



WEB-ENABLED IN
4
 MONTHS



MOVED
43,000
 SOFTWARE OBJECTS
 TO ECLIPSE

"Time-to-market is essential to our business. With NaturalONE, we moved our business to the Web in less than four months, seamlessly moved to Linux and completely migrated to the Eclipse environment in eight months. With this technology, we were very fast—anything built from scratch would have taken three to four years."

— **Eyk Pfeiffer** | Managing Director, travelbasys

Country: United States
Industry: Health & pension benefits
Size: \$1.6 billion in combined assets
System: Pension and health benefit administration
Platform: Windows®



NATURAL FOR WINDOWS® DELIVERS SUB-SECOND RESPONSE TIMES

OBJECTIVES

- Quickly and accurately process medical claims and pension benefits
- Contain costs and keep benefits rich
- Convert Natural and VSAM™ on VSE to Adabas & Natural on Windows
- Migrate from Natural for Windows to NaturalONE and Web-enable applications
- Increase business-to-business transactions and provide better presentation for analytics
- Expand business to new markets

RESULTS

Administrative Service Professionals (ASP) is a third-party administrator for The Teamsters Health & Welfare and Pension Funds of Philadelphia & Vicinity as well as other Delaware Valley employee benefit plans. Built using Adabas & Natural, its system tracks member history and contributions from all employers then calculates pension and health benefits and provides real-time reporting of eligibility. As soon as time/payment information is entered and posted, members can see the results on the Web, and the member service team has all the information ready at their fingertips to provide accurate and timely support. ASP pays about \$150 million in medical claims and \$180 million in pension benefits per year with about \$1.6 billion in assets managed. To contain costs and keep benefits rich, ASP converted its mission-critical application on Natural and VSAM on VSE to Adabas & Natural for Windows in 2005. Today, it is moving to NaturalONE to build even better front-ends and enter new markets.



\$1.6 B
ASSETS
MANAGED



42,000
CLAIMS & PAYMENTS
PER MONTH



63,000
MEMBERS

"There is nothing out there that we could buy and modify that would capture remittance and intense formula calculations of our Natural application. The sub-second response time we get from Natural on a Windows platform is impressive, even for our Web application. We look forward to doing even more, faster and easier, with NaturalONE."

— **Rod Wall** | CIO, Administrative Service Professionals, Inc.

Country: Brazil
 Industry: Information technology
 Size: Serves 10 million people, 399 towns in State of Paraná
 Website: www.celepar.pr.gov.br



REAL-TIME DATA EMPOWERS BUSINESS INTELLIGENCE

OBJECTIVES

- Deliver information to support strategic decision making in public security, prisons, education, health, traffic and other areas of public interest
- Quickly raise revenue by launching incentive program for refinancing of tax and non-tax debts
- Integrate Adabas data with Business Intelligence (BI) and Web applications in real time without increasing mainframe CPU consumption
- Eliminate data extract process

RESULTS

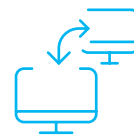
Celepar helped the Secretary of Finance quickly collect R\$186.5 million from citizens who had not paid their taxes. By aggregating all information about delinquent accounts from multiple systems, Celepar was able to tell every citizen what they owed in taxes. More than 200,000 debts were settled and R\$1.72 billion in debts were regularized, exceeding the project goal of R\$700 million by 146 percent. By using Event Replicator for Adabas to provide up-to-date information to more than 800 BI and Web apps, Celepar supports strategic decision making for the government while optimizing resources on the mainframe.



EXCEEDED
GOAL BY
146%



REGULARIZED
R\$1.72 B
IN DEBTS



SHARE MF DATA WITH
800+
APPLICATIONS

"We easily integrate mainframe data with more than 800 business intelligence and Web applications using Event Replicator for Adabas. By providing information in real time, we are able to improve productivity and add value by converting data into information and information into strategic knowledge. With Event Replicator for Adabas, it is very easy to make the mainframe a valuable tool for other applications."

— **Marcelo Fermann Guimarães** | Coordinator of Operations, Celepar

ABOUT SOFTWARE AG

Software AG offers the world's first Digital Business Platform. Recognized as a leader by the industry's top analyst firms, Software AG helps you combine existing systems on premises and in the cloud into a single platform to optimize your business and delight your customers. With Software AG, you can rapidly build and deploy digital business applications to exploit real-time market opportunities. Get maximum value from big data, make better decisions with streaming analytics, achieve more with the Internet of Things, and respond faster to shifting regulations and threats with intelligent governance, risk and compliance. The world's top brands trust Software AG to help them rapidly innovate, differentiate and win in the digital world. Learn more at www.SoftwareAG.com.

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