

GEOS news

Information for customers, potential customers, partners and employees of SDS Software Daten Service Ges.m.b.H.

Successful start



In the last issue of GEOSnews, we announced the joint venture between our customer HSBC Trinkaus & Burkhardt (HSBC T&B) and T-Systems. The

final contracts were signed on 29th April 2005. Thus we have a "new" customer: the joint venture will operate under the name International Transaction Services (ITS) and has been set up to create a transaction bank that will handle the securities processing operations of HSBC T&B, DAB, S-Broker and other future customers. We would like to wish this new player in the transaction banking arena every success and will make every effort to ensure that GEOS plays a part in this success.

There have also been a considerable number of developments as far as our other customers and ourselves are concerned. In addition to the customers of ARZ, ITS and AGI, Bank Austria Creditanstalt AG has also decided to license GEOS Nostro, which enables our customers to comply with the statutory accounting requirements laid down by IFRS. The first customers have successfully prepared their 2004 annual accounts with GEOS Nostro, with Bank Austria Creditanstalt AG planning to go into operation

at the end of 2005. GEOSnews includes a detailed article on this topic.

At the moment, we are working particularly hard on two customer requests. The first involves GEOS and process optimisation. There is still scope for improving the cost-effectiveness and quality of processes by using GEOS to simplify and automate them. We offer a consulting package for existing GEOS implementations which focuses on working with the customer to boost this potential. Further product enhancements will include improving the STP rate of GEOS, for example through new messages for fund processing, transparency with regard to pending orders and the processing of settlement allegements.

Secondly, our customers have called for a reduction in the amount of testing they have to carry out, e.g. when upgrading to a new release. We have put together another package which will help the customer to test GEOS more quickly, more reliably and thus with much less effort. This package encompasses pure consulting, the use of our automated testing tools and joint testing by the customer and SDS.

You will also find detailed information on these topics in this issue of GEOSnews.

One of our major goals for this year is to extend the GEOS customer base beyond the established markets of Austria, Switzerland

and Germany.

This will involve positioning the company and GEOS internationally. This means an international sales team as well as an international market presence. Many of you will have noticed that our homepage has a new address (www.geos.biz). This was just the first step.

GEOS will become the focal point of all our market communication, which will be given a more international footing. In order to increase awareness of GEOS in the non-German-speaking territories, we have put together a promotion entitled "New In Town", which is set to appear in specialist international publications. Part of this campaign also appears in this edition of GEOSnews.

We have made a successful start to 2005. We now look forward to completing the tasks ahead of us.

Regards,

Bernd Johnen, CEO ■

EDITORIAL

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Reducing costs through efficient fund processing in GEOS

Fund processing at many banks tends to involve a high degree of manual intervention. Despite the existing communication standards (SWIFT) according to which those involved operate (investment trusts, custodian banks, exchanges etc.), the communication process for order processing in particular is based on the manual input and dispatch of orders by fax. The system requirements and, above all, key fund master data needed to process funds automatically and efficiently are frequently absent.

GEOS solves this problem not only through the integrated import and management of all necessary master data but also guarantees Straight Through Processing (STP) during order processing through the fully automatic transfer of fund orders combined with automated and parameterizable order routing with automatic order dispatch. Manual intervention in the front, middle and back office of any bank can be reduced to a minimum through the automatic entry of transaction executions and integrated settlement of fund orders.

Master data

Automated fund processing is based on comprehensive master data management in GEOS. Master data encompasses information on investment trusts, funds, sales charges, fund prices etc. and can be imported via various interfaces (e.g. WM, Telexkurs) or updated manually.

Order entry

Fund orders can be automatically entered into GEOS via the SWIFT interface or via interface in GEOS format, for example. Individual input dialogs that are both simple

and user-friendly can be used to enter fund orders manually, if necessary. When orders are transferred via interface or entered manually, they are validated and subjected to plausibility checks. Directly the order is entered, the available fund position is reduced by the order quantity (in the case of sell orders) or a provisional posting is output for the cash side (in the case of buy orders) in order to reduce the available cash balance accordingly. Rather than entering individual customer orders, bulk orders can also be entered or imported from a Portfolio Management System.

Order routing

During order routing, all customer orders of a fund can be dispatched in compressed form or as a block order, depending on the respective trade type. Within the framework of the automatic routing of fund orders to investment trusts, trading platforms or exchanges, GEOS uses predefined settings to decide the recipient, the format, the channel and the time at which an order is dispatched. Orders can be dispatched electronically via SWIFT or via fax. Alternatively, a general GEOS interface can be used to supply data in GEOS format. The status of an order is continually monitored by the system for its entire duration and can be displayed online at any time. Orders for which dispatched has failed and which may require manual intervention are also monitored by the system and the user is notified automatically.



Executions and accounting calculation

The transfer of executions and the accounting calculation of fund orders are fully automatic and are supported by appropriate interfaces. Rather than being imported, transaction executions can be automatically generated by GEOS based on price information available in the database. Appropriate dialogs can also be used to enter information manually, if necessary.

Settlement & clearing

Different systems are often used for front, middle and back-office processes. GEOS offers an integrated solution for all areas. Thus settlement & clearing is also an integral part of STP in GEOS. Based on standing instructions, settlement instructions are automatically generated by the system for all transactions. These are dispatched automatically to the custodian via the relevant interface. All matching information is also transferred and processed automatically, such as advices of execution following the final delivery of transactions.

As with trade orders, the respective status of delivery instructions is continually monitored

by the system. Delivery instructions that may have to be processed manually are recognised automatically and the user is notified online of any existing delivery instructions.

Additional functionality

In addition to STP during fund processing, GEOS also allows investment savings plans and withdrawal plans to be processed fully automatically. The processing of distributions

is fully automated.

Integration with electronic trading platforms such as INVESTRO, FundSettle and Vestima is currently being developed and will enable processing to be integrated and fully automated in this area as well, allowing banks to make considerable savings and to reduce costs significantly.

As far as communication is concerned, GEOS will be able to meet current and future market needs through the implementation of additional message formats (XML).

Summary

In GEOS, fund processing is integrated into the overall securities processing and custody application, allowing fund orders as well as other securities transactions to be fully processed in one system, thus ensuring seamless securities processing from start to finish. GEOS and STP are key to ensuring efficient and cost-effective fund processing. ■



with or without reinvestment as well as any other corporate actions such as fund mergers

+++ breaking news +++ breaking news +++ breaking news +++ breaking news

We are pleased to announce that the search for an appealing, internationally applicable name for the joint venture between HSBC Trinkaus & Burkhardt and T-Systems International is finally over. The joint venture will operate under the name

International Transaction Services GmbH (ITS).



Market leaders working hand in hand – GEOS^{Integration} Core Banking designed for use with SAP

Integration of GEOS and SAP Deposits Management

The complementary core banking systems offered by SDS and SAP represent an attractive package for high-volume transaction banking. The GEOS^{Integration}SAP integration software, whose name speaks for itself, is designed to seamlessly integrate business processes across the two software solutions and is already available as a product.

The customers of both software companies include banks in Germany with high expectations in terms of functionality, throughput and availability. GEOS has been used successfully by renowned Düsseldorf-based private bank HSBC Trinkaus & Burkhardt since November 2002. As the leading securities trader, HSBC Trinkaus & Burkhardt operates one of Germany's biggest securities processing centres and handled over 17 million securities transactions in 2003. SAP Deposits Management went into operation at Deutsche Postbank in October 2003, marking a significant milestone. The Postbank has a market share of 30%, making it the biggest provider of payment transaction services. The new solution will enable it to consolidate its leading position.

Integrated banking solution

Based on the mutually available standard interfaces, GEOS^{Integration}SAP ensures the comprehensive technical and banking-specific integration between GEOS and the SAP systems Deposits Management and Customer Information Management. GEOS^{Integration}SAP automatically provides the information currently needed for the transaction and also supplies downstream systems for payment transactions, financial accounting and reporting with securities processing data. GEOS^{Integration}SAP thus eliminates redundant data in a multi-system environment.

Benefits of GEOS^{Integration}SAP implementation for the customer

The GEOS^{Integration}SAP integration software is offered as an SDS product with a long-term future and guaranteed product support. GEOS^{Integration}SAP is already available, thus shortening the time-to-market cycle. Furthermore, GEOS^{Integration}SAP frees banks from any development and integration risks and ensures costing and planning reliability during implementation.



Following a number of preliminary studies, Austria's biggest bank opted for the GEOS Nostro accounting system at the end of last year. GEOS Nostro is a standard software package for managing and balancing an institution's own holdings of securities and derivatives.

Not only will the introduction of GEOS Nostro enable Bank Austria Creditanstalt AG (BA-CA) to comply with the statutory and supervisory accounting requirements of the Austrian Banking Act (BWG, Bankwesengesetz)/Commercial Code (HGB, Handelsgesetzbuch) and IFRS (International Financial Reporting Standards) guidelines (IAS 39), but it will also allow the software environment to be homogenised and thus system-related costs to be reduced.

Alongside DAB bank AG in Germany, Schoellerbank AG and direktanlage.at AG in Austria, BA-CA is now the fourth subsidiary of the Bayerische Hypovereinsbank (HVB) to go into production with GEOS Nostro.

Current situation

BA-CA is currently using the WESD and WEEBO securities own holdings systems, both proprietary systems that have been developed in line with the accounting and reporting requirements of the Austrian Banking Act and Austrian Commercial Code and which are designed to fulfil exclusively these legal requirements. They do not adequately support the use of international ID numbering systems (e.g. ISIN, Cusip etc.) for various banking applications and parallel accounting according to IFRS, in particular according to the provisions of IAS 39 (International Accounting Standards).

Preliminary studies

The need to introduce international ID numbering systems, but especially the need to prepare its consolidated accounts according to IFRS and its individual accounts in line with the Banking Act/Commercial Code from 2005 onwards, prompted BA-CA to investigate the following scenarios within the framework of a feasibility study in the middle of last year:

1. Change/extension of existing WESD and WEEBO systems.
2. Integration of GEOS Nostro standard software solution with already implemented IFRS functionality.
3. Development of a proprietary accounting and management system for securities own holdings.

Scenario 3 was rejected following detailed analyses which revealed uneconomical and time-critical factors.

Scenario 1 concerning the further development of WESD and WEEBO using existing resources and databases was also rejected.

Opting for GEOS Nostro

The results of the second study (scenario 2, Integration of GEOS Nostro standard software solution with already implemented IFRS functionality) can be summarised as follows:

- One system for the management and valuation of the relevant positions.
- Standard software solution demonstrably

capable of fulfilling auditing and reporting requirements, thus

- Simplified auditing and coordination with the auditor (GEOS Nostro has been developed under the expert supervision of KPMG Alpentreuhand).
- Reduced implementation risk through moderate implementation effort.
- Appropriate operating costs.
- Reduced operating risk through the allocation of several resources to tasks.
- Legal changes are covered by the support contract.
- Standard GUI.
- System-based, automated parallel accounting.
- Prompt financial statements.
- Operation of a single system (GEOS and GEOS Nostro).

The general risks of using a standard software solution are entirely outweighed by the positive experiences from past joint projects between BA-CA and SDS, according to Torsten Hohendorff, top securities specialist at WAVE. Hohendorff has already been heavily involved in the implementation of GEOS at BA-CA and at Düsseldorf-based private bank HSBC Trinkaus & Burkhardt.

Any doubts about individual program changes that arose during the lengthy preliminary stage were resolved by the comprehensive change requests already accommodated in the contract (securities account as criterion for holdings separation, balance-sheet methods for liabilities, holdings and value-based entry of external transactions outside of GEOS, interest accruals/deferrals of float coupon categories and of coupons posted before and after the due date, logging of end-of-month derivative positions).

The gap analysis between standard products and user requirements is the all-important basis for the next stages. It rules out any "unpleasant surprises" during implementation and in productive operation, according to Karl Hrastrnik, project manager at BA-CA.



Because the purchase of GEOS Nostro was proven economically sound by each analysis, BA-CA was able to go ahead and confidently place the order.

Project team

The GEOS Nostro implementation project kicked off at BA-CA and WAVE Solutions for IT GmbH (the IT arm of BA-CA) on 1st December 2004. The aim of the highly motivated project team headed up by Karl Hrastnik (BA-CA), Gerhard Brzobohaty (WAVE) and SDS was to ensure that the implementation of GEOS Nostro with accounting functionality in line with the Austrian Banking Act/Commercial Code and IFRS was executed as efficiently and as smoothly as possible.

The project team comprises experts and users of BA-CA, IT specialists and experts of WAVE who have already made a successful contribution to the GEOS project, as well as IT specialists of ITA.

SDS is not only the software vendor, but also provides support during the entire project through GEOS Consulting, under the leadership of Ewald Formanek, and the Nostro development division, headed up by Christian Burger. The SDS team has already concluded a number of successful implementation projects, for example with HSBC Trinkaus & Burkhardt, the Swiss AGI partner banks (the group of eight cantonal banks) and the BAWAG P.S.K. Group. The project is being overseen by SDS Account Manager Claudia Trausmuth.

Implementation project

December 2004 and the first half of 2005 were taken up with specialist and technical workshops between BA-CA, WAVE and SDS (co-ordination of change requests, acceptance of detailed concepts, interface mapping etc.).

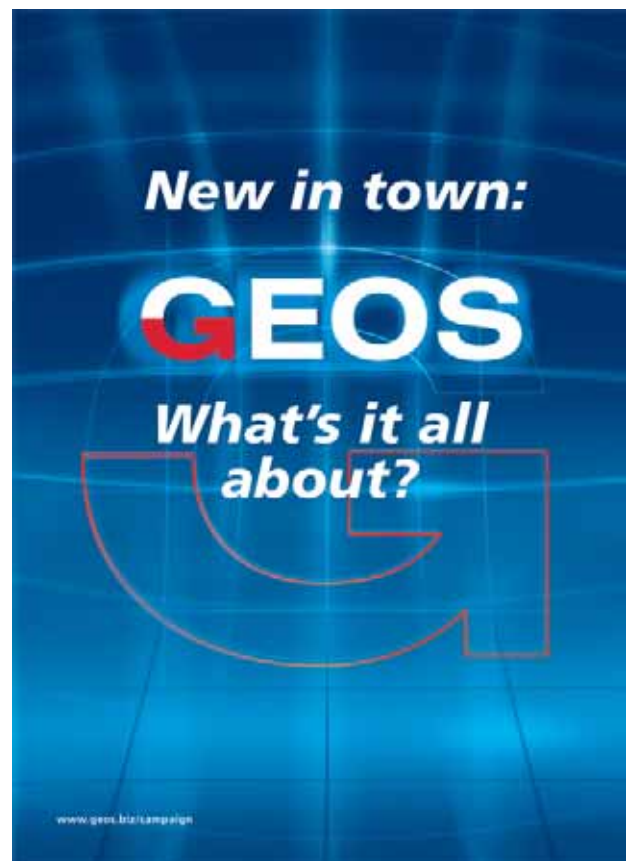
Migration and acceptance tests will be concluded by the end of the third quarter of 2005. The remaining change requests will be delivered by SDS by the end of June 2005.

Comprehensive parallel testing will be carried out during the fourth quarter of 2005, aimed at ensuring that GEOS Nostro is running smoothly and optimally, with all interfaces to integrated systems (SAP-FI/GL, success and market risk controlling, treasury reporting, supervisory laws and regulations, accounting, price interfaces with front-office systems etc.), by the end of January 2006 at the latest.

The annual accounts for 2005 should be prepared using GEOS Nostro in parallel with WESD/WEEBO.

The switch from WESD/WEEBO to GEOS Nostro is scheduled for mid-January 2006, back-dated to 1st January 2006. With a follow-up time of one month, the project is set to conclude at the end of February 2006.

Because each milestone has been reached on time and because of the excellent level of cooperation between Bank Austria Creditanstalt, WAVE Solutions for IT, IT Austria and Software Daten Service, implementation looks set to be completed successfully, on time and within budget by the beginning of 2006. ■





BA-CA Wohnbaubank AG opts for GEOS Nostro

Almost six months after the decision of Bank Austria Creditanstalt AG to implement GEOS Nostro, BA-CA Wohnbaubank AG (a wholly-owned subsidiary of BA-CA) has also decided, following a brief evaluation period, to use GEOS Nostro to balance its investment banking business.

The relevant bodies (executive board and supervisory board of BA-CA Wohnbaubank, entire banking organisation and WAVE Solutions) voted in favour of a multi-client institution configuration of GEOS.

Those responsible for accounting at BA-CA Wohnbaubank AG opted for GEOS Nostro for two main reasons: firstly, they required a standardised system for handling investment banking in the Bank Austria Creditanstalt group. Secondly, the high level of automation in GEOS Nostro will allow internal and external auditing requirements to be met.

The GEOS securities processing system supports the automated transfer of transactions between several client institutions (GEOS-to-GEOS dispatch). This technology will allow transactions of the BA-CA client institution to be transferred fully automatically and “straight through” to the GEOS Nostro system of BA-CA Wohnbaubank AG.

The GEOS Nostro project for BA-CA Wohnbaubank AG will begin at the same time as GEOS Nostro is being implemented at parent company Bank Austria Creditanstalt AG and will go live shortly after the main project.



Six questions to the project management team of Bank Austria Creditanstalt AG

1. What made you choose GEOS Nostro?

A long time before we even came to a decision, we had already given some thought to replacing Bank Austria Creditanstalt's AG existing system. Negative business cases and other, higher priority projects prevented us from simply replacing it with GEOS. The situation changed when the new IFRS requirements came into effect on 1st January 2005. The bank wanted to establish a solid, system-based accounting platform. A study which was started in August 2004 focused on the following scenarios:

- the development of a proprietary solution,
 - the extension of the existing system by adding the necessary IFRS components and
 - the implementation of GEOS Nostro,
- whereby there was a clear preference for GEOS Nostro.

2. What are the advantages for Bank Austria Creditanstalt AG of introducing GEOS Nostro?

The use of GEOS Nostro will enable the bank to manage securities processing and own holdings (assets and liabilities) in one integrated system. Statutory changes are covered by the maintenance contract and we can fully rely on the cooperation of SDS. Switching from our existing system to GEOS Nostro means that own holdings can be immediately managed (settled) in line with the Banking Act and IFRS provisions. Furthermore, we are in a position to handle additional client institutions.

3. Were you able to take a look at the live systems of other client institutions? Do you have contact with any other banks using GEOS Nostro?

Through the subsidiary Schoellerbank AG as well as close contact with HSBC Trinkaus & Burkhardt, Bank Austria Creditanstalt AG had access to two of the very first users. We were able to take a peek at the live system of HSBC Trinkaus & Burkhardt in Düsseldorf.

4. What savings can you expect to make through using GEOS Nostro, with particular regard to statutory changes?

By using standard software, the risks of development and customisation can be spread across all of the users. Risk and expenditure become calculable thanks to the maintenance contract.

5. What risks were you able to identify during the implementation project?

When we chose GEOS Nostro it was clear that changes would have to be made to GEOS Nostro in order to meet the individual requirements of Bank Austria Creditanstalt. Change requests that are now being implemented had, at that stage, to be evaluated and defined. The relevant know-how is shared between only a few people at the bank, SDS and WAVE Solutions.

6. Are you happy with the support provided by SDS during the project?

The support of SDS during this complex and difficult project is bolstered by the high level of personal commitment shown by its employees. It is obvious that they identify with the product and the project. We know we are in good hands. Flexibility is high on the agenda of those involved in the project and is integral to our partnership with SDS.



The “New In Town” campaign



Thank you for your interest in our company and this campaign. We would like to take this opportunity to elaborate on the concept behind the campaign and on GEOS.

If you like what you see, then please feel free to send us an e-mail. If you don't, then we would welcome any suggestions for improvement.

If you would like any of the images used in the campaign for your office, they can be downloaded from the internet.

Changes

2004 witnessed the acquisition of our company by one of the biggest IT and communications providers, T-Systems International. This move had significant implications for the development of our company.

Until the takeover, we were a medium-sized software company with 250 employees in Vienna, Austria. For over 10 years, we have been focused on the development of GEOS, a leading application for the processing of securities and derivatives. We have a customer base in Austria, Germany, Switzerland and Ireland.

The involvement of T-Systems International changed everything.

Although we are still a medium-sized company, we are now part of a major group. With the sales and service resources of T-Systems behind us, we can begin **expanding into Europe**. We are now in a position to provide software and related services to customers throughout Europe. Additional target markets include the UK, France, Italy, Spain, Benelux and Scandinavia, and we also have our sights set on Eastern Europe.

As far as these countries are concerned, we are “**New In Town**”.

The involvement of T-Systems has opened up another strategic dimension. Our software is the cornerstone of T-Systems' new business model for the European banking industry: Business Process Outsourcing for the processing of securities and derivatives. We are proud that T-Systems International chose our software to pursue this strategy.

Campaign concept

The purpose of the campaign is to arouse interest by placing captivating articles in specialist publications. The campaign should stand out against the multitude of other promotions that also appear in these publications. Interest can be aroused by a well-written article or simply through a “**teaser**”.

We furthermore assume that readers prefer not to be overwhelmed with extensive promotional text, which tends to put them off. Therefore, we have opted for a campaign which makes use of limited text and which is eye-catching.

What's more, interest should be further heightened by the “page-turner effect”: more than one advertisement should always be placed in the publication. The second advertisement should be visible as soon as the reader turns over from the first advertisement. The reader

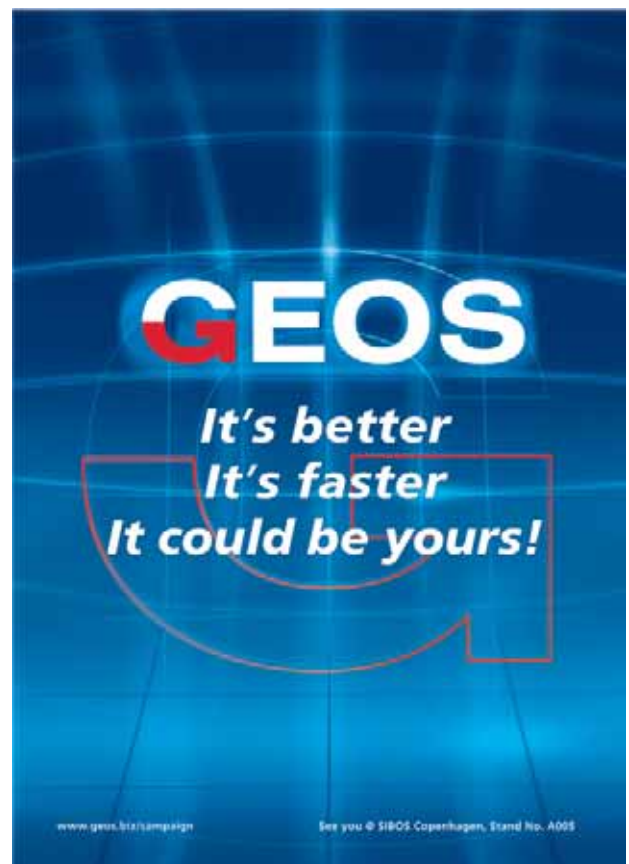
will then hopefully turn back, thus briefly focusing his attention entirely on GEOS.

The image “**New in Town – GEOS – What's it all about?**” serves as an initial eye-catcher.

The image “**It's better – it's faster – it could be yours**” is an abstract description of the benefits of GEOS and suggests to the reader that he too could enjoy these benefits.

The image “**See You at ...**” encourages the reader to look further into GEOS at the next opportunity.

Readers who do not know what GEOS does will be none the wiser even after reading the advertisements. This is deliberate. We hope that the advertisements and their message will be enough to convince the reader that it is a good idea to investigate GEOS further. Just like you.



What is GEOS? What does GEOS do?

It's better – it's faster - it could be yours.

GEOS is a software application that is used by over **600 banks throughout Europe** to process **30,000,000 securities transactions** – from the order through to settlement and corporate actions.

As a back-office system, GEOS is very much geared towards **Straight Through Processing (STP)**: a transaction should be completed with as little manual intervention as possible, ideally fully automatically. This strong commitment to STP is one of the reasons why we are focused on the full and direct integration of all of the latest SWIFT developments. GEOS is a **Gold Label** product.

GEOS is designed as a **real-time system**. There are no time lags in GEOS. There are also real-time interfaces to Portfolio Management Systems, exchanges and other market participants.

GEOS can be used across different time zones without restriction.

GEOS is **platform-independent**. There is, however, a strategic orientation towards LINUX, which is a cost-effective platform and the quickest for GEOS.

GEOS customers are already running GEOS successfully on LINUX.

If you are facing any of the following **challenges**, then GEOS could be just what you are looking for:

- The costs involved in securities processing are too high – both in terms of actual processing as well as IT.
- The level of manual intervention required

to process securities transactions and corporate actions is too high.

- The number of errors involved in processing is too high.
- The application you are using is expensive to maintain.
- You are not sure whether future changes or extensions to this application can be implemented promptly and cost-effectively.
- The limits of your current application prevent the back office from being better organised.
- You want to consolidate the processing of several securities transactions within your company.
- You want to collaborate with another bank in the field of securities processing in order to be more cost-effective.
- You do not wish to operate proprietary securities processing applications in future.
- You are looking for a software partner who

is both a major player and who is able to offer long-term stability.

Then talk to us.

If we have managed to whet your appetite, then do not hesitate to get in touch by e-mailing us at marketing@geos.biz or by paying a visit to stand A005 at SIBOS 2005, which will take place in Copenhagen from 5th to 9th September 2005. ■



15th FINANCE FORUM 1st to 2nd November 2005 Kongresshaus Zürich - Stand No. 27

The leading know-how forum for the finance industry provides a platform for 150 exhibitors to showcase their software solutions and consulting services for banks, financial services providers and insurance companies.

GEOS is the ideal securities processing and one-stop banking solution.



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GEOS Ticker

Finance Forum Update-Sessions, 10th of May 2005

A Finance Forum Update Session was held at the UBS Conference Centre "Grünenhof", Zurich, on 10th May 2005. The topic was "Transaction bank: from trend to reality?". Dr. Jürgen Hernichel of T-Systems and Mr. Thomas Fleischmann of HSBC Trinkaus & Burhard gave a joint presentation revealing what the experts think of our joint venture in Germany. The high level of interest in the subject was underlined by a lively podium discussion. You can download more information from www.finance-forum.com by clicking on UPDATE-SESSIONS.

User-friendly exception handling in one central, application-wide tool

Yesterday

GEOS supports the Straight Through Processing (STP) of securities transactions, boasting extraordinarily high STP rates. Thus much of the GEOS user's work involves dealing with exceptions (exception handling), where manual intervention is either desired or technically necessary.

At this point, it is worth looking briefly at the benefits of GEOS as an online system compared with a batch-based architecture.

There are still a number of large European banks running batch-based systems with no real-time information, which means that uncertainty about the status of trades can last for hours and that questions can only be answered after a delay of several hours. A scenario which the newer members of GEOS banks will hardly be able to remember. An online system such as GEOS is significantly more reliable and much quicker, in turn making securities processing more reliable and cost-effective.

In order to derive any benefit from the permanent availability of current information, access and the distribution of individual tasks have to be organised systematically. GEOS offers several possibilities for the documentation, supervision and handling of exceptions.

The familiar "to-do lists" offer another alternative to the search dialogs that are available in each main window. Technically, to-do lists are nothing more than search queries that can be centrally parameterized and combined and made available to users on a workstation-specific basis.

Whilst search queries can be used to find

transactions that have been successfully concluded or where an error has occurred, the search criteria used during exception handling can be refined so that only defective data records are found.



Examples include searches for rejected orders or unmatched trades.

The relevant to-do list displays exceptions and can be used to assign these exceptions to specific teams.

As logical and successful as the concept of the to-do list is, certain circumstances call for user-specific rather than workstation-specific to-do lists. In the meantime, complex and, therefore, highly resource-intensive search combinations have been requested and implemented.

Several customer requests prompted us to focus on this major issue:

- Immediate approval vs. later approval. The earlier implementation of supervisor verification using the authorisation system necessitated, at least in the case of a change, the simultaneous presence of two employees – the person submitting the request and the person authorised to give approval – at the same workstation.
- Increasing number and complexity of to-do lists, reliable allocation to various departments, avoidance of redundant processing.
- Error logs from batch processing are not

available via the front end and thus do not allow for direct access to the source of the error.

It was therefore decided that development resources should be pooled in order to solve these problems within the framework of one standardised concept.

Today

The new GEOS-wide exception handling concept was developed as an alternative to existing functionality. Exception handling takes a different approach to searching for errors in that, rather than searching for data records, exceptions are reported the moment they occur.

Firstly, a new function for the delayed approval of changes was implemented (approval request to a central monitoring station in line with supervisor verification). The relevant functions built into GEOS also form the basis for the much more sophisticated use of central exception handling, integrated from version 3.1.2.

This new form of process control allows transactions that require manual intervention and which are therefore no longer part of the STP chain to be tracked, monitored and processed. If an error occurs, then an exception is generated and can be displayed and processed using the request list.

This opens up a whole new range of options:

- Assignment of the exception to a field of activity defined by the client institution.
- Display of hindrances/reasons for hindrances.
- Direct access to pending transactions.
- Processing documentation.
- Approval of changes at any time by an authorised employee (subsequent supervisor verification/later approval).
- Management of reserved dispatch orders for processing by a specific employee.



- Monitoring of the authorisation system log of warnings, supervisor verification requests and protection errors.
- High-performance, low-resource and thus cost-effective search for pending transactions.

When an exception occurs, the details are communicated to central exception handling/pending transaction management, whereby all of the information needed for subsequent processing and revision is documented.

The field of activity can be defined and is assigned using a client institution-specific decision tree.

Exceptions can be selected and listed, and the user is assigned tasks based on his authorised fields of activity. The user can access the source of the error or even go directly to the history from the request, depending on the type of exception.

Furthermore, the request list shows – depending on the source of the error – information

about the object. For example, the phase, status, price etc. can be shown for an execution, or the equivalent value, limit or trading centre can be shown for an order.

Using this information, an approval can be given or rejected or the cause of the exception can be resolved and the transaction returned to the STP chain.

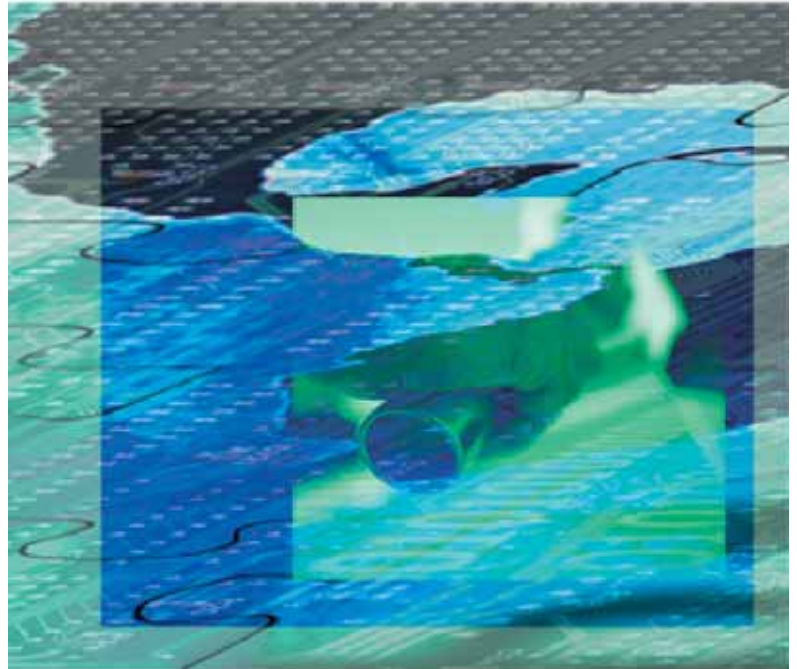
As well as the processing of exceptions, process control also allows the logs of the authorisation system to be viewed. Any user action that triggers a warning, an approval request or protection error in the authorisation system can be displayed using the approval list. The many options available for searching, displaying and sorting support internal control, management and auditing tasks.

Tomorrow

Exceptions, approval requests and errors can of course occur in any area of securities processing. GEOS Exception Handling is gradu-

ally becoming the central tool for handling all of these exceptions, irrespective of origin. The job list can be used for event data processing as well as securities account master data and holdings maintenance. Besides approval requests, errors from online and batch processing are entered into exception handling, where they are processed with the available tools. At the same time, the data can be used as the basis for further processing in MIS systems.

Thus GEOS Exception Handling is the central, GEOS-wide tool for handling and reliably processing any situation which necessitates manual intervention by a specialist department.





DID YOU KNOW THAT ...

... GEOS can be seamlessly integrated with front office applications and web pages?

Online interaction with GEOS is especially important for sales initiatives and customer contact. A consolidated view of all relevant customer information is also essential. Via Multi Front Link (MFL), the sales team can access the relevant GEOS functionality as well as other information about accounts or savings products, for example, in a standardised user interface. Thus, there is no need for the separate use of a GEOS client in the branch office and no compromises on securities functionality have to be made.

... in 2004, GEOS received the SWIFT Ready Gold Label for Securities Custody and Settlement?

In addition to trades, deliveries and corporate actions, the registration of registered shares, the reconciliation of custodian securities accounts and the creation of statements of transactions and of securities account statements can henceforth be communicated automatically via SWIFT.

... GEOS is capable of import-ing, managing and processing bulk orders?

Bulk orders can originate from orders of the same type through asset redeployment in portfolio management systems or be entered directly in GEOS with subsequent import of the individual orders. This allows for immediate trading in a single bulk order, without each individual order having to be available in GEOS at the time.

... GEOS Derivatives has a EUREX interface?

Besides derivatives trading and the joint position keeping of derivatives and underlying instruments, GEOS Derivatives also offers open/close adjustments, exercise and assignment, option expiration, give-up/take-up and the notification of bond futures as well as margin calculation for initial and variation margins (ÖTOB, EUREX, general margin module).

The EUREX interface transfers all trades, including cancellations, and processes trading transactions as well as open/close adjustments, exercises and assignments fully automatically. The remaining executions can be displayed in the interface lead table.

... you can e-mail or fax any document from GEOS via document interface?

The widespread use of electronic means of communication – including for personal use – has led to alternative ways of sending traditional paper documents (order confirmations, accounting calculations, securities account statements etc.). The advantage of sending documents electronically is that customers receive them much more quickly and that, because fewer resources are used (paper, printer, physical dispatch), costs can also be reduced. ■

SDS optimises system documentation



With the release of GEOS 3.2., not only has the system documentation been given a new look, but it now also boasts extended functionality, greater clarity and an improved structure. This will allow information to be accessed more quickly and efficiently and will accelerate system adaptations on the customer side.

In response to customer demand for greater transparency of the documentation on the one hand and the call of the technical writers for a standard format on the other, SDS decided to convert the entire system documentation to the widely-used HTML format. Because time-consuming layouting is no longer an issue, more time can be spent on quality assurance, in turn benefiting our customers directly.

The lion's share of the system documentation is generated from the content of the in-house concept management tool CMF (Concept Management Facility), where specialists in the various development divisions create and manage the software specifications. Until now, this part of the technical documentation was exported from CMF and used by the system documentation team as the basis for the complex generation of Word documents. Ano-

ther part of the system documentation was created and maintained directly in MS Word. Both of these processes required a high degree of manual intervention and were proving no longer suitable for the task.

The project for converting the format of the system documentation kicked off in the spring of last year. One of the earliest stages involved an extensive analysis of the scope and content as well as the processes involved in creating the system documentation. A total of around 7,500 pages in the form of Word documents created from different data sources (in future to include UML models as well) formed the starting point for this completely new form of system documentation. A new format that would be suitable for further structural text

processing had to be found. The solution was XML.

XML is widely recognised as the key technology for e-business. It allows electronic documents to be saved, published and exchanged and thus fulfils the basic requirements of e-business. Furthermore, XML documents can be automatically reformatted for any type of output device (e.g. Cross-Channel Publishing, Cross-Media Publishing).

All texts can now be exported via interface from CMF in standardised XML format. Using the DocBook standard, which is widely used in the creation of technical documentation, the content relevant to the system documentation is then filtered from the extensive XML-based content and converted to HTML.



While XML exports from CMF and further processing





continued, the project team began migrating the Word documents. In order to create a consistent basis for “clean” XML, formatting had to be standardised to allow documents in XML to be converted according to the DocBook standard.

The combined result of each of the project phases was a standardised format, irrespective of which tool was used to create the texts. Layouting is carried out automatically based on style sheets and the processes for handling exceptions have been optimised. This allows the technical writers to concentrate fully on content while not having to worry about document structure and formatting.

Whereas the system documentation previously consisted of individual Word documents that had to be structured manually, the latest documentation is now published in full with each software release (including Deltas, Service Packs and Emergency Packs) and placed on the SDS Customer Support Site. Customers are able to see precisely when a function was changed, since the delivery identifier of the function remains the same until the document

is next changed. A function is only given a new delivery identifier when a description changes.

When the program is delivered, the system documentation specific to each release is published on the Customer Support Site. Each publication of the system documentation features a user-friendly navigation function, allowing the user to browse the individual chapters of the manual quickly and easily.

A full text search allows individual documents on a specific topic to be found quickly. User-friendliness is further increased by the ability to download the entire documentation (including full text search) or individual documents, and by a function for printing specific documents. The technical system documentation has never been more user-friendly.

A number of further improvements to the system documentation are still on the cards, however. The next stage will see changes geared towards the demands of the international market. Part of the system documentation is currently being translated into English. To be able to maintain the documentation in another

language, the content will have to be managed using a Content Management System, and this is part of a further step.

Further functional enhancements for preparing and displaying information that will enable changes to be tracked will be implemented in the next stage.

These changes to the system documentation have resulted in the creation of a product that will provide the customer with reliable and comprehensive information about the current status of the software. This will shorten lead times both for SDS and the customer, resulting in a win-win situation all round. ■

Who to contact at SDS

Should you have any further questions or require more information about any issues concerning GEOS System documentation, please contact Mrs. Heide-Maria Scheidl under info@geos.biz or your customer service representative.



Flexible activation and implementation of additional languages for GEOS documents and reports

The GEOS user interface as well as GEOS documents and reports have been available in several languages for many years. Currently, all German versions (for the entire German-speaking territory) as well as English, French and Italian are fully maintained.

The use of languages for GEOS documents and reports was hitherto tied to the purchase of a license for an entire language module, i.e. it was not technically possible to activate, or to implement as part of a customer order, additional languages for GEOS documents and reports independently of the GEOS user interface (dialog language).

In order to meet the high service demands of those of our customers who need GEOS documents and reports in the language of their respective customer target groups, it is now possible to use (license) languages for GEOS documents and reports independently of the dialog language or to commission language implementation independently of the availability of the relevant dialog language.

As part of a drive to internationalise and increase the flexibility of GEOS, this move will enable all GEOS users to improve their own service quality without significant expense, since only the 20 per cent of a new language needed for the documents and reports (proportion of the entire user language accounted for by documents and reports) has to be licensed.



How much does non-STP in securities processing cost?

Quantifying non-STP

“No bank knows how high its process costs are” (Jürgen Rebouillon). In attempting to accurately determine and control the process costs involved in securities processing, many banks have gone about as far as they can go: applications that have grown uncontrollably, poorly documented processes and a lack of quantitative review procedures make the analysis and evaluation of manual operations (non-STP) in securities processing more difficult. The primary aim of GEOS Process Cost Management (GEOS PCM) is therefore to establish cost transparency as far as manual intervention during securities processing is concerned. More specifically, this means transparency with regard to the origin of costs (where do costs caused by manual intervention in securities processing occur?) and the responsibility for costs (who was responsible for these costs and why did they occur?). This information increases cost-awareness and provides a starting point for process optimisation as well as an empirical basis for simulating cost trends.

GEOS PCM is based on standard processes in GEOS and can be divided into the following process groups:

- Master data
- Trading
- Events
- Services
- Rights
- Deliveries
- Offers

Core processes are grouped together in each process group: for example, the “Event” process group encompasses the corporate actions, income and Annual General Meetings core processes. Core processes can also be divided into subprocesses: for example, the corporate actions core processes comprises the “processing log”, “cancellation type” and “claim realisation” subprocesses. As a rule, transaction statistics are determined and estimated at subprocess level.

For each core/subprocess, the central cost drivers are identified, their extent is determined (automatically or as target values) and they are temporally weighted (measurement or expert survey). Taking the above example

of corporate actions as a core process, the following cost drivers can be identified:

- Number of events
- Number of checks and approvals
- Number of cancellations
- Number of claim realisations (on the customer and custodian side)
- Number of custodian reconciliations

The quantitative determination of the aforementioned cost drivers is carried out using batches which query the GEOS database (see section 2). The time needed to perform an approval, cancellation etc. exists in the form of time measurements in GEOS product development or through expert surveys and are used as multipliers in the evaluation model. However, it is also possible to determine these time factors in the bank (actual value) or to define them as target values during cost simulation.

Methodology, estimation and benchmarking

The evaluation models of GEOS PCM specify, in the form of cost drivers identified for each core process, every variable whose size has to be determined during periodic evaluation of the GEOS database. These input variables form the basis of an analysis and evaluation of actions carried out manually in GEOS processes.

In order to determine the defined input variables, a batch-controlled evaluation module scans the GEOS database to identify those GEOS operations performed manually for each institution. The analysis can be performed for individual or all GEOS business areas during any observation period. These GEOS operations are counted by evaluating the specialist functions, allowing a distinction to be made

between the various processing variants, i.e. in many cases, addition, quick entry, change/cancellation, deletion etc. are shown separately. A distinction can be made between process variants in securities processing products with transaction journals.

The result of the transaction count can be output for several purposes in a form that can be easily processed – for GEOS PCM, a compressed output by process group, core/subprocess is determined and transferred to the relevant evaluation and simulation models, weighted with empirically determined time factors and totalled. The operations performed manually for a specific securities process in the given period (month, quarter, year) are delivered as the result in hours, estimated as a minimum, mean and maximum value.

Existing transaction journals that can be evaluated also allow for an inter-bank comparison with different platforms (e.g. DB-Trader at Xchanging-ETB and GEOS at HSBC T&B)



based on quantity structure and cost drivers, paving the way for process-driven benchmarking. The core and subprocesses of the aforementioned process groups can be combined in any way for the purposes of the comparison thanks to their modularity.

Summary

The evaluation and simulation models of GEOS PCM deliver the manpower requirements in FTEs for the surveyed or forecasted quantity structure during the survey period:

- The determination, analysis and evaluation of manual operations (non-STP) in securities processing is no problem for modern processing platforms: existing transaction journals that can be evaluated allow process costs to be calculated based on quantity structure and cost drivers including time factors.

- For the quantitative determination of input variables, a batch-controlled evaluation module determines, on an institution-specific basis, the operations performed manually by scanning the GEOS tables.
- During the software evaluation phase, GEOS PCM delivers decision-critical information for creating business cases.
- Once in production GEOS PCM supports process streamlining and controlling. Thus the management team has access to key planning data in

conjunction with transaction volumes.

- During benchmarking with competing products, GEOS PCM allows decision-critical statements to be made about the process cost sensitivity of the IT platforms used by banks for securities processing. ■



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SAPPHIRE 26th to 28th April 2005 Bella Center Copenhagen

SAPPHIRE '05, one of the world's largest SAP events, took place between 26th and 28th April in Copenhagen under the banner "SAP: EXPERIENCE. INSIGHT. INNOVATION". GEOS made its debut in Denmark on the T-Systems International stand, the large number of visitors enabling us to make many interesting contacts on the Scandinavian market.

Besides providing a platform from which to showcase our products, the event – which was attended by several customers and providers from all areas of the SAP world – was also an excellent opportunity to look beyond our own back yard and to check out the areas of activity, interests and challenges of other branches of industry.

Cost factor test

Each customer uses GEOS in conjunction with a number of different systems which vary from installation to installation. Whereas GEOS module and system testing is carried out by the manufacturer, integration testing of the entire system environment can only be carried out at the customer. In order to minimise customer effort (staff, time, tools etc.), we have launched “GEOS Test Solutions”.

GEOS Test Solutions – the solution

What do we hope to achieve for our customers?

On the one hand, we are striving for a qualitative optimisation of customer testing:

- Optimised planning, management and controlling
- Increased testing coverage

On the other hand, we are aiming to reduce testing effort considerably:

- Optimised test data management (selective data extraction from production environment)
- Reduction of testing time and overtime
- Introduction of automation tools (optimised for GEOS)

GEOS Test Solutions – the architecture

The years of development that have gone into GEOS have enabled the testing department to greatly increase its product-specific testing know-how. GEOS Test Solutions is geared towards giving our customers access to this know-how.

The focal point of GEOS Test Solutions is our central testing tool, CTF (Concept Test Facility), which is also capable of meeting requirements with regard to the testing of other soft-

ware systems. Using CTF, the entire testing of GEOS, and to some extent of other software products as well, can be fully automated.

This architecture benefits not only from our extensive experience in the field of automated testing, but also from our knowledge of testing setup, testing methodology, testing procedures and testing infrastructure.

different projects)

- flexibility of testing (reduced dependency on experts in specialist departments) and
- a significant increase in testing coverage.

To enable each of our customers to determine their own potential for optimisation, we offer an evaluation which focuses on the following:

- Breakdown of all current testing costs



Benefits

What are the benefits of GEOS Test Solutions to the customer?

An increase in the efficiency and quality of testing (not only of GEOS) through

- significant savings in terms of time spent and the cost of testing
- multi-tasking (parallel and automated testing by different employees and/or for

- Determination of savings potential
- Identification of areas for improving the quality of testing processes

All of the findings made during the evaluation will be delivered to the customer in the form of an individual business case. ■

Who to contact at SDS

Should you have any further questions or require more information about any issues concerning GEOS Test Solutions, please contact Mr. Alexander Racher under test-solutions@geos.biz or your customer service representative.

Michael Gangel – a passionate handball player

It was thanks to his older brother, once also a player at national level, that 14-year-old Michael Gangel discovered handball. He already has 17 seasons in Austria's top handball league and a highly successful career under his belt:

4 championships, 3 cup wins, 150 caps with the national team, 1 student championship and 3-time highest goal scorer in Austria.

Michael Gangel is 35 years old, and while others of his age have already hung up their training shoes, he is still at the top of his game. In his club, the AON-Fivers, he is far from being on the scrap heap – in fact, he is the captain and figurehead for his team, both on and off the field. He knows how to connect with and motivate the younger players, who benefit from his experience. "It's important that we do a lot together and that we're good friends," says Gangel.

And just to show the youngsters that the master hasn't lost his touch, he scored 19 goals in a recent, almost single-handed win against Sparkasse Schwarz during the current championship, setting a league record. Never before has a player in Austria's top handball league scored 19 goals in a single match.

Gangel is motivated by his love of the game and the strong support of his family. "Juggling family life and a 35-hour job with four training sessions per week and a match at the weekend," says the

father of two, "requires excellent time management and a lot of understanding on all sides. I have the support not only of my family, but also of my employer, Software Daten Service GmbH, where I have worked for the past eight years."

But even a model sporting career has its downsides, such as injury or defeat. "It always happens on 13th and during the



European cup," Gangel smiles. "One time it was a cruciate ligament, then a bicep tear." The latter forced him to sit out for eight months, almost finishing his career. Ever since, he has never been quite as "relaxed" when playing sport on 13th of a month. The national team was also knocked out of the world championships.

And what of Gangel's current sporting objectives? "To win the championship with AON-Fivers again," he says. "And our prospects are excellent. We have qualified for the semi-finals in the Samsung handball league, where Austria's top four teams compete for the championship. After that, we'll see."

But retirement isn't on the cards just yet. "It's going too well at the moment to think about that." And the success is proof of that. The youngsters might well be nipping at his heels, but they haven't caught him yet. But there is another Gangel waiting in the wings – 18-year-old Johann, who is following in the footsteps of his uncle. ■