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## Is Your Foundation Good Enough for the Future?

By Maarten Schneider, Worldwide Marketing Manager, Enterprise Application Environment and Agile Business Suite, Unisys TCIS



For many years, the business has pressured IT to rapidly modernize the client-facing side of its application portfolio.

First came the push for an Internet presence. On its heels came demands to implement "self-service" concepts using, for example, simple ASP.NET screens that connected to special-made front-office solutions or directly to back-office applications. Then the need for a service-oriented architecture (SOA) was born.

Take a moment to look at where we are today. The push for change continues to accelerate – intensifying the demand to offer all kinds of self-service capabilities over smartphones, tablets, and other devices. And even though most individuals still work the typical nine-to-five schedule, employees and customers expect 24-7 access to all parts of your back-office systems in an extremely easy-to-use way.

And that's not all: you must also create interfaces between a variety of social media outlets, like Facebook and Twitter, so friends and followers can directly search for goods, place orders, or track the status of their shipments in your systems.

As technology changes continue to accelerate every year – spanning everything from operating systems and frameworks to databases and development environments – it will become more important than ever to capitalize on new technology opportunities as they emerge and transform them into a competitive advantage for your business. >>

**The EAE/AB Suite Symposium and European EAE/AB Suite Technical Seminar will be taking place in October. Mark your calendars!**



But how can you be sure your business needs – both current and future – can be supported with your existing application foundation? What IT strategies will enable you to become a business leader in your marketplace?

The fact that it's tough to know the answers to these questions underscores the uncertainty about what applications will be needed to support the business going forward. Only this is for sure: a lot of change will be required. That's why application agility is so vitally important.

### Are You Agile Enough?

Clearly, embracing and responding to change is a key enabler to success in today's – and tomorrow's – market. So, the question is: how agile are you today, both in terms of your applications and business as a whole?

Some of the newest business requirements can be addressed by the latest front-office applications, which are increasingly being made available as software-as-a-service (SaaS) offerings, such as Salesforce.com.

But you need a strong foundation first. Namely, a solid and agile back-office application with good SOA capabilities that can help you keep your entire application landscape manageable.

For example, if you want to communicate more with customers over Facebook and Twitter, then you should consider storing additional account information in a centralized location in your back-office application and database.

This illustrates how important it is to understand the agility of your mission-critical enterprise applications and your central corporate database.

So ask yourself: How quickly can I update my back-office applications with additional functionality or add new data items and/or records to my enterprise database? Likewise, how easy is it for me to build a SOA-based interface to integrate a new front-office application, even if it is a SaaS-based solution? And how quickly can I create a thin user interface (UI) layer for mobile users?

In some situations, a consumer-ready, off-the-shelf solution can be a good replacement for a decades-old homegrown application. But when you have a team of smart developers that understands your business, a better approach would be to replace the existing back-office application with a solution built in house – one that uses the latest technology to address emerging business and operational requirements.

Such new, custom solutions keep you agile in the future and can help to dramatically lower your maintenance costs – and support your business in the best possible way at the same time. >>

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*“I attribute our cost-efficient application development to our Unisys environment, particularly ClearPath systems and AB Suite. We're able to maintain our core applications with just 15 to 17 individuals. A comparably sized organization typically has 100 to 150 developers.”*

– Scott Minkel, Vice President of Information Services, United Fire Group

## Agile Business Suite: A Solid Foundation for Tomorrow's Applications

And an incredibly powerful, valuable way to create these solutions is Unisys Agile Business Suite (AB Suite). AB Suite is a model-driven development environment with a high-level scripting language that helps organizations build mission-critical enterprise solutions in a fraction of the time of other programming approaches.

AB Suite makes use of the Microsoft® Visual Studio® environment and integrates with Microsoft Team Foundation Server. Using the model you build, AB Suite generates 100 percent of the application code and database schema specifically for your choice of two operating environments: Microsoft Windows® and Unisys ClearPath MCP. And, the solution includes several options for modern UIs, including mobile devices.

By providing a development environment in which leaders from across the organization can collaborate, AB Suite allows you to design new capabilities that resonate at the business level. You'll be able to focus more attention on what an application should do – and stop worrying about how it should be coded or deployed.

With this solid and agile foundation, you can be ready for the future and concentrate more time and energy on serving the business in the best possible way. This way, rather than simply responding to change, you can capitalize on it.

*We would be more than happy to give you detailed information about AB Suite and work with your development team on an AB Suite pilot project. In addition, we offer a full set of services to support your initial step towards AB Suite, including building the first release for you. If you're interested, please contact us at [ABSuite@unisys.com](mailto:ABSuite@unisys.com).*



### Save the Date!

The second annual EAE/AB Suite Symposium and European EAE/AB Suite Technical Seminar are rapidly approaching. During these events, we'll provide the latest news and insights about AB Suite, demonstrate many of the solution's key functions, and much, much more.

# ClearPath ePortal Looping Orchestration

By Nigel Tunnicliffe, Architect, Unisys TCIS



This article is the second in a series examining how the ClearPath ePortal can be used to create custom Windows Communication Foundation (WCF) services against existing ClearPath systems or Agile Business Suite applications running on a Microsoft Windows platform. Last issue we covered the Simple Orchestration feature. Now, let's move on to looping orchestration.



The example in Figure 1 illustrates a fairly simple orchestration process. But, it's one that does allow a more granular set of services to be created from a single host application screen.

Because ePortal supports a range of structured activities, such as those shown in Figure 2, it is possible to write a number of more intricate orchestrations.

This article will examine how you can employ these structured activities to create a more complex, looping orchestration.

Once again, the examples shown in this article are all taken from an ePortal interface with an AB Suite application running on a ClearPath Libra system. However, as far as the developer of ePortal services is concerned, there is no difference whatsoever between an application running on a ClearPath Libra system, a ClearPath Dorado system, or, in ePortal 6.0, AB Suite on Windows. All the techniques described below will work equally well on any ePortal supported platform. >>

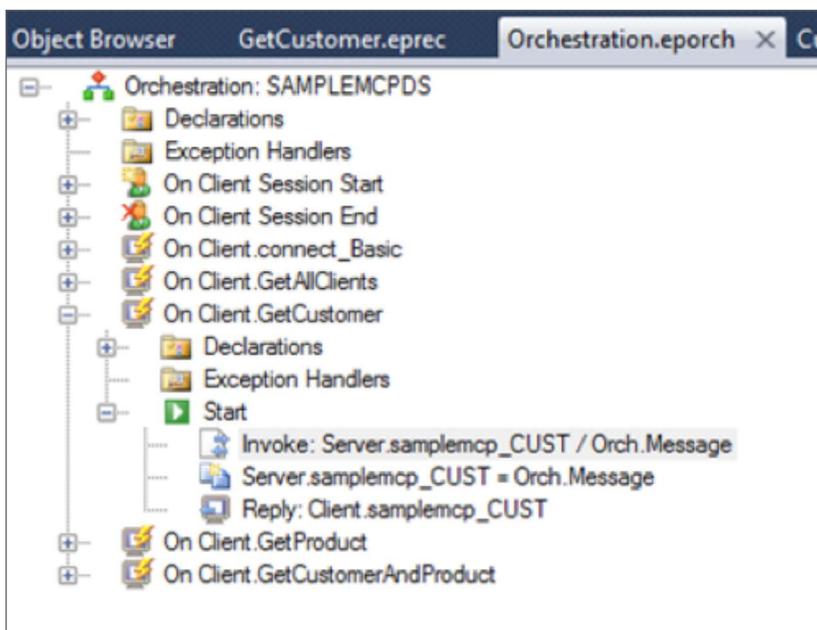


Figure 1. A simple orchestration in ePortal.

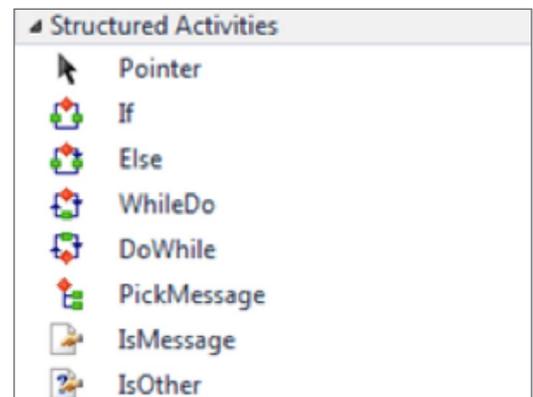


Figure 2. Structured activities supported by ePortal.

## Announcing ClearPath ePortal Release 6.0

Made available in April of 2014, [ClearPath ePortal Release 6.0](#) provides modernization functionality that can help you enhance the reach and value of your mission-critical ClearPath applications. In addition, the solution is now available for the AB Suite on Windows Runtime. This means that AB Suite applications running in the Windows environment can now take advantage of ClearPath ePortal modernization capabilities and enjoy the advantages previously available to ClearPath users only. Please [watch our recent webinar](#) to learn more about the wealth of new features in this release.

### Looping Orchestration in Action

An example of a complex orchestration is shown in the sequence in Figure 3. In this case, we are building a service that will return a list of all customers matching a specific criteria. The host system used in the following examples includes such a screen, but it typically requires multiple calls to the screen to build the full list of customers.

Using ePortal, you can easily define a new orchestration that loops over this screen until you receive an indication from the host saying no more customers match the specified criteria. Once this occurs, you will be returned to the full list of matching customer details.

However, even though this process is more complex than the one defined using the Simple Orchestration feature, the orchestration is built in exactly the same way as the simple example:

- Define a new client message containing the field(s) to be set in the service

- Create an orchestration that calls the required screen(s) on the host system
- Define how fields should be mapped from the client message to the host screen. In this case, we are instructing ePortal to build a composite list of customers by adding each response from the host system to a single ePortal response message.

Note that in each of the sequences shown in Figure 3, the call from the client to ePortal is always made via a WCF service. The call from ePortal to the host system is made via a system-specific protocol – Component Enabler, in the case of an AB Suite system. However, consumers of the overall service are only ever aware of the WCF service. There's no reason for them to worry about how ePortal actually submits the message to the host system. >>

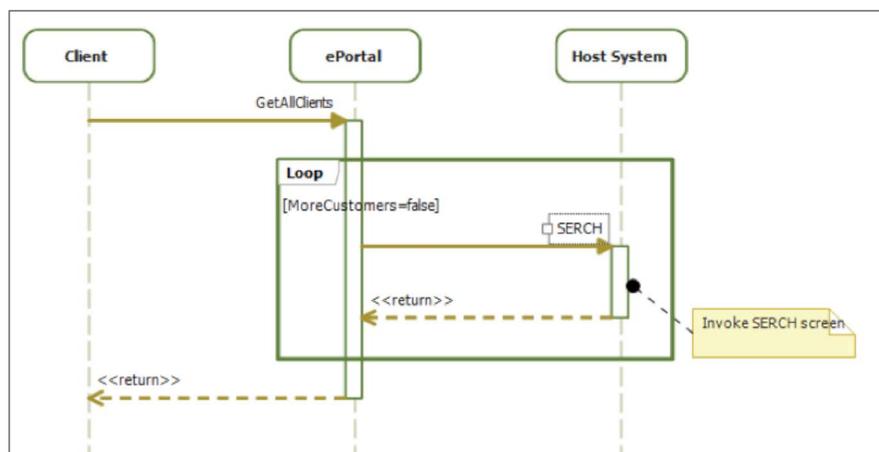
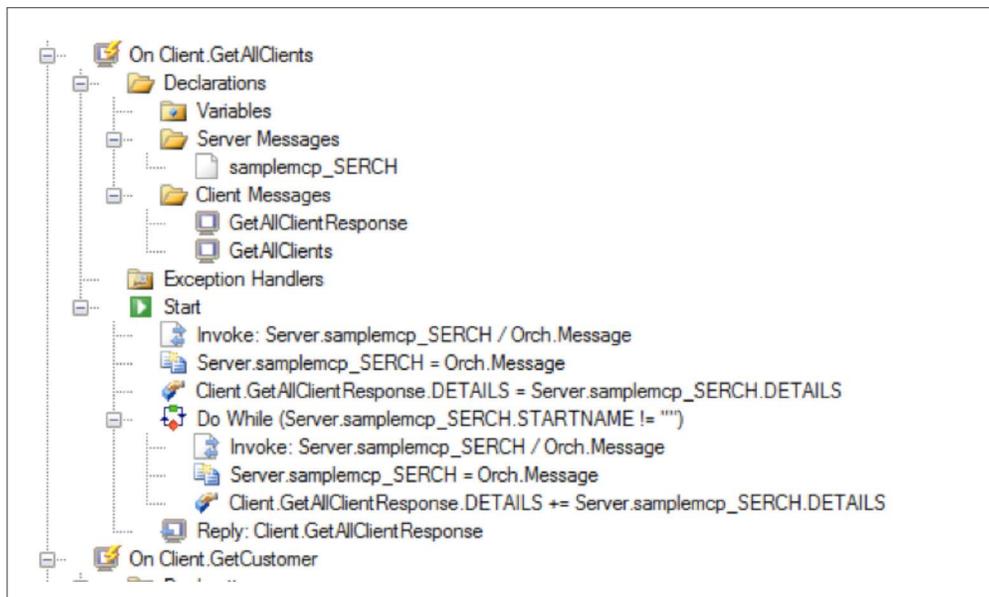


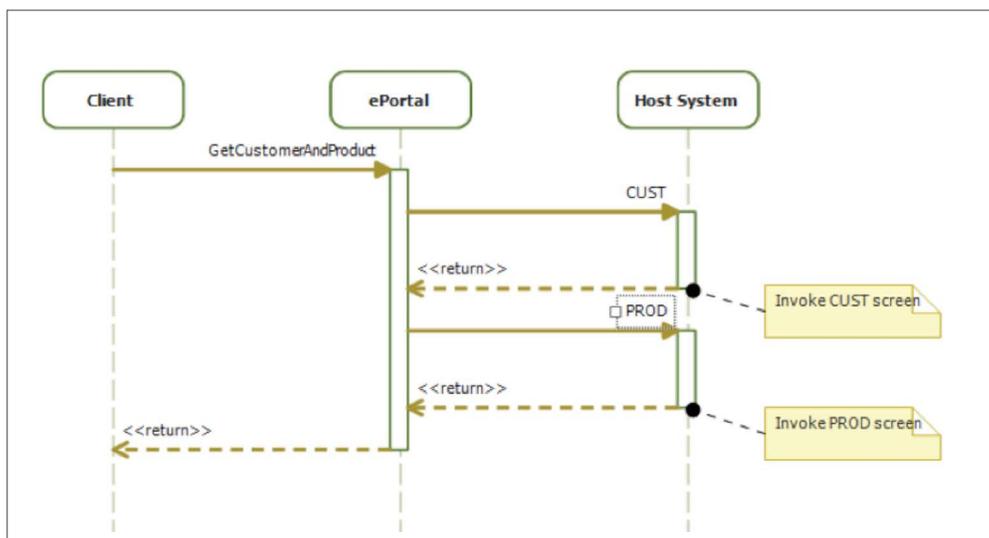
Figure 3. A more complex orchestration.

The sequence in the previous image is implemented using the orchestration shown in Figure 4. This orchestration simply makes repeated calls to the SERCH screen – while the field “STARTNAME” is not equal to spaces – and builds a composite response made of all the replies to the initial call.



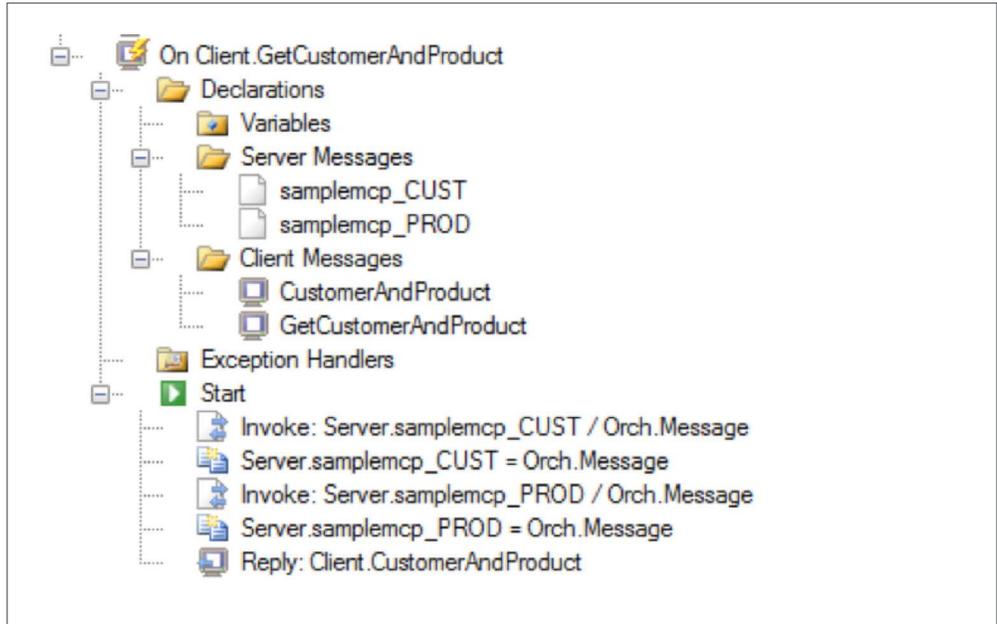
**Figure 4.** The “GetAllClients” orchestration.

You could also write an orchestration to call one or more unique screens, as shown in the sequence in Figure 5. This would allow you to create a service to return the details of, for example, a customer and the products he or she has just purchased. All in a single call to ePortal. >>



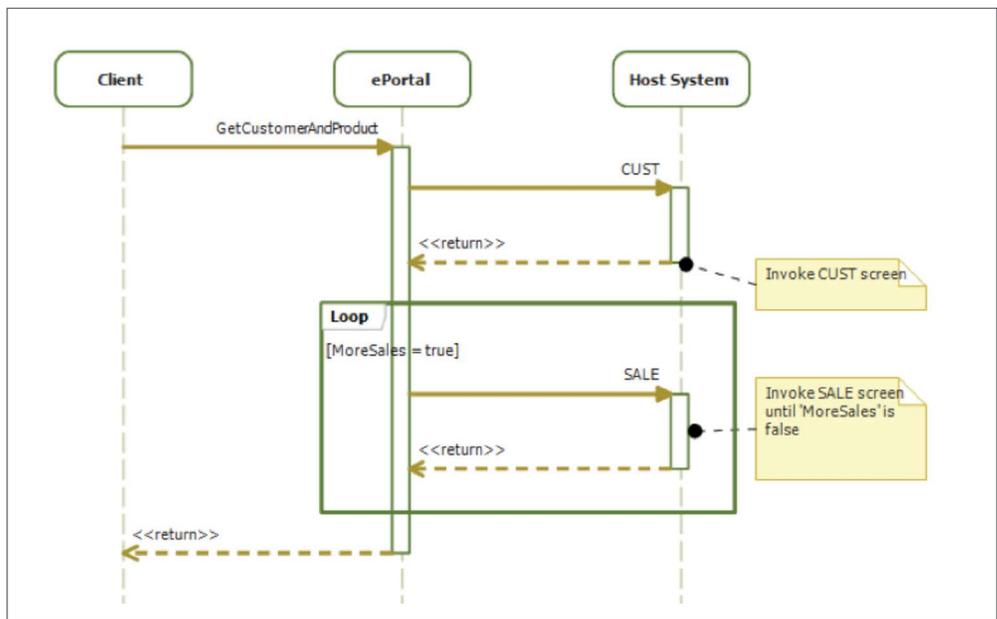
**Figure 5.** Calling two different screens.

This process is implemented using the type of orchestration shown in Figure 6.



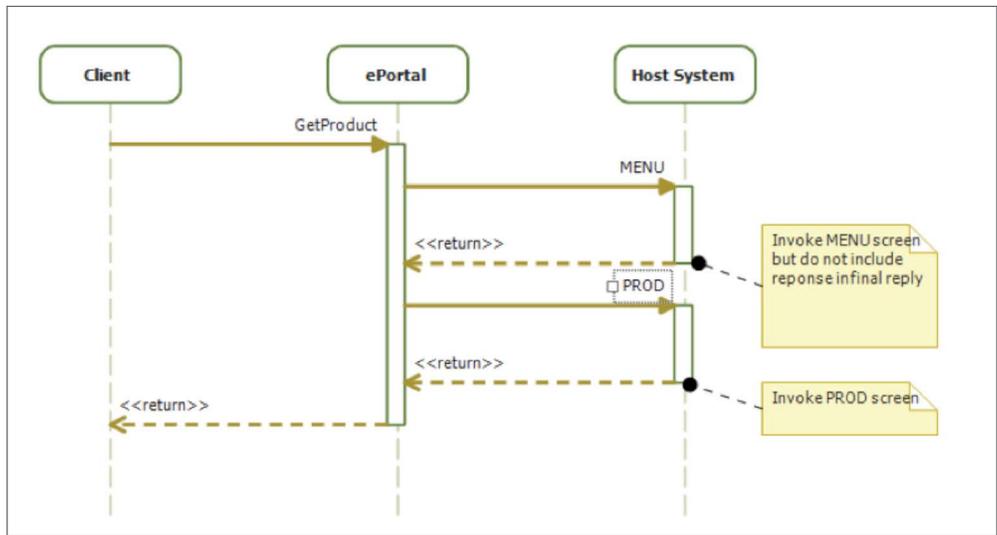
**Figure 6.** The orchestration for calling two screens.

In addition, you could even combine all of these concepts. This process is illustrated in the sequence in Figure 7. In this case, the orchestration will call the CUST screen to gather details about a customer and then call the SALE screen multiple times to locate all sales associated with this individual. Once this information is on hand, the orchestration will return a single, composite response. >>



**Figure 7.** A combined orchestration.

The same technique can be applied to systems that require you to use a custom menu in order to reach the required host screen. In the case of Figure 8, you are effectively telling ePortal to ignore the response from the MENU screen and only return the response from the PROD screen.



**Figure 8.** Bypassing the MENU screen.

In summary, using looping orchestration in ePortal means there is no longer a one-to-one relationship between services and the underlying host screens. Multiple services can all map to the same host screen. Likewise, a single service can call multiple host screens. This makes it much easier to expose the business functionality of a host system as a set of services – a process that aligns with SOA best practices.

These services can now be used in a wide variety of applications:

- An enterprise service bus (ESB) environment, such as Microsoft BizTalk®, which provides out-of-the-box support for communicating via WCF services. This makes it is easy to create content-based routing or BizTalk orchestration solutions that use ClearPath and AB Suite systems.

- Custom web page screens that need to retrieve data from a ClearPath or AB Suite system
- Microsoft workflow-based solutions
- Any client process that supports calling a WCF service

*Most ClearPath systems already have all the elements of ClearPath ePortal built in and ready for use. We encourage you to explore these capabilities with a pilot project. [Visit our web site to learn more.](#) For additional information about ePortal, please view our [videos on YouTube.](#)*

*If you have questions about ePortal, need help using it in your organization, or would like more information, please drop us an email at [ABSuite@unisys.com](mailto:ABSuite@unisys.com).*

# Baltic Technology Group Introduces AB Suite 4.0 at Universities in Latvia

By Astra Kikute, Director of Human Resources and Contract Operations, Baltic Technology Group



In 2006, Baltic Technology Group (BTG) and Unisys launched the first ever course aimed at introducing Latvian college students to the model-driven development environment of Agile Business Suite. The University of Latvia, the largest higher-education institution in the country, was chosen for this pilot project.



Throughout the last seven years, this project has expanded in size and scope, speaking to the immense interest the combination of AB Suite and the Microsoft .NET environment generates in young programmers. Today, the study

course is available in three universities across Latvia: The University of Latvia, Daugavpils University, and Ventspils University. Fifty-five students completed the course in 2012 – the most of any year since it has been offered. To date, more than 200 students have taken the course and successfully passed the exam.

As more and more students complete the course, it gives BTG and other companies throughout the world access to top young development talent with considerable AB Suite knowledge.

As a Unisys Preferred Services Provider offering development services to Enterprise Application Environment (EAE) and AB Suite clients, we are constantly upgrading our skills in Unisys technologies and adding new, young developers to our team. Plus, we routinely participate in field tests and will be taking part in the AB Suite 5.0 field test later this year. This expertise allows us to provide high-quality services to EAE and AB Suite users and enables us to teach students the newest AB Suite functionality.

For example, earlier in the year we had an opportunity to introduce AB Suite 4.0 at Ventspils University. Feedback from teachers and students confirms that the latest release represents a substantial leap forward in functionality and makes AB Suite even easier for young developers. We plan to use AB Suite 4.0 later this year when courses resume at the University of Latvia and Daugavpils University.

*To learn more about BTG, please visit our [web site](#).*

# Engineering Corner: Migrating Application Data with the EAE Data Migration Tool

By Jim Nichols, Consulting Engineer, Unisys Global Technical Consulting (GTC)



One of the necessary, and sometimes challenging, tasks inherent in an EAE to Agile Business Suite migration is the transfer of the application data from one environment to the next. The options and choices available to accomplish this task will vary depending on the nature of your migration.



For example, if you're migrating an EAE on Windows application to AB Suite on Windows, then the EAE Data Migration Tool is a good choice to facilitate the migration of application data. This utility has always been included with the AB Suite software, but was

enhanced in AB Suite 3.0 to make it even better suited to this task.

Let's take a look at what it does and review a couple recent enhancements.

## What It Is and What It Does

The EAE Data Migration Tool actually consists of two special utilities:

- EAE DBMigrate Utility SQL 2008
- EAE DBMigrate Utility SQL 2012

Which utility you use will depend on the level of Microsoft SQL Server® software being used for your target AB Suite application.

Regardless of the utility you choose, we recommend that the EAE source database and AB Suite target database reside on the same machine. So, if necessary, your initial step should be to copy the source database to the AB Suite database server.

Once the AB Suite application has been generated with a new, empty database on the database

server, this easy-to-use utility can transfer all of the data from the tables in the EAE source database to the corresponding tables in the AB Suite application database. Simply enter the requested information to identify the source and target databases, and sit back while the database records are transferred. The "[EAE to Agile Business Suite Migration Guide](#)" provides details on how to use these utilities and explains the requested information.

## Enhancements

In order to make the EAE Data Migration Tool a faster, more reliable resource, the following enhancements were introduced with AB Suite 3.0:

- Use of SQL Server Integration Services (SSIS)
- Automatic drop and recreation of indexes

Here's a closer look at each.

### *SQL Server Integration Services*

The installation of the DBMigrate utilities mentioned above adds a custom component to SQL Server that enables it to make use of SSIS. The use of SSIS with the EAE Data Migration Tool is another example of how the AB Suite software takes advantage of proven, reliable technology to improve the product. In this case, SSIS is used to transfer data from the source to the target database, resulting in a significantly faster migration when compared to earlier versions of the tool. >>

Please note that SSIS is not installed by default in SQL Server 2008 or 2012. So if you plan to use the EAE Data Migration Tool, you must remember to install this feature on your database server first.

### ***Drop and Recreation of Indexes***

A factor that can contribute to the amount of the time it takes to transfer the data to the new database is the number of indexes and views defined against the tables. The more there are to update as each record is added to the database, the longer the migration will take.

In the case of large databases, we used to advise you to manually drop the indexes and views prior to the data migration and then recreate them after the data had been transferred. This was a workaround to help you avoid the performance impact of a lengthy data transfer.

This is no longer necessary when it comes to indexes. The EAE Data Migration Tool now automatically drops all indexes at the start of the migration process and recreates them for you once the data has been migrated, resulting in a faster data migration process.

*To learn more about the EAE Data Migration Tool, please read the [EAE to Agile Business Suite Migration Guide](#). And if you would like additional information or need help with any aspect of your migration, please email us at [ABSuite@unisys.com](mailto:ABSuite@unisys.com).*

# CSC Analyst Spotlight: Hans Habers

This article is part of a series showcasing the Unisys Customer Support Center (CSC) Analysts who support EAE and Agile Business Suite. Interested in seeing a support analyst featured? Send us your nomination: [ABSuite@unisys.com](mailto:ABSuite@unisys.com).



Hans Habers joined Unisys in December of 1974, shortly after completing his term in the Dutch Air Force, where he provided maintenance on flight computers. Hans began his tenure with Unisys as a site engineer, then became a disk specialist and member of the Large Systems installation team during the 1980s. The 1990s saw Hans take his first steps into the world of customer support, where his responsibilities shifted to ClearPath MCP platforms and eventually LINC, EAE, and Agile Business Suite.



Always more comfortable working at a customer site than sitting behind a desk, Hans quickly found his niche in the support organization, especially when he began providing ambassador services to Dutch insurer Achmea in 2003. His work

as an ambassador laid the groundwork for one of the key roles Hans has today: a Support Account Manager (SAM).

In addition to his regular duties as a CSC Analyst, Hans serves as the SAM for four companies in his native Netherlands: Achmea, Movir, and two other customers.

## The Life of a SAM

As an advocate dedicated to helping these organizations address product support issues, expedite escalations, and facilitate resolutions, Hans provides numerous critical functions as a SAM.

For example, Hans visits Achmea every week and Movir each month to help the organizations' IT teams diagnose potential issues and discuss the

best ways to remediate or work around them. He also reports on any new Interim Corrections (ICs) that may have been released since his last visit and discusses the considerations associated with implementing a particular IC. In addition, he creates an annual inventory of the software status at each company and helps both plan, prepare, and implement upgrades to new MCP, EAE, or AB Suite software release levels every year.

When supporting upgrades at Achmea, Hans' activities extend to network and database software, 60-plus databases, Virtual Machine for the Java Platform on ClearPath MCP (JVM for MCP), and eight instances of the ClearPath MCP JProcessor specialty partition – across four active partitions. In addition, Hans also helps the team at Achmea test the business continuity plans for its two production partitions and works with them to rid their systems of old and unused code and source files. Plus, he provides around-the-clock standby support in the event of a production disruption.

When it comes to the other two organizations, Hans is primarily focused on keeping the companies' archival systems up and running on supported software and informing the organizations of any actions they may need to take. >>

No matter the organization or its needs, Hans has found that the customers he works with greatly appreciate the value of a SAM. Because the SAM functions as a single point of contact within Unisys, organizations feel peace of mind knowing they have an advocate who truly understands their environments and can communicate on their behalf with Unisys sales and engineering teams, or initiate an escalation in the event of a disruption. And, acting as a SAM has helped Hans gain a better understanding of customer needs and priorities – something that helps him in his daily role as a CSC Analyst.

### A Student of History

Always eager to better understand the world and its people, Hans spends much of his spare time reading history books and researching historical topics on the Internet. This interest in world history dovetails nicely with Hans' love of travel. With every trip he takes, regardless if it's for business or pleasure, Hans takes the time to learn more about the country and its history, and is always sure to visit the local museums with his wife. As Hans will tell you, it's the best way to gain perspective into why things and people are what they are.



Hans' photo of the flooded Danube River in Budapest, Hungary.

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*“When I call Hans Habers, even in the middle of the night, he is always willing to help us.”*

– Peter Duindam, IT Administrator, Achmea

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# Info Center and Calendar



To view our libraries of How To documents, white papers, and other useful information, simply go to [public.support.unisys.com](http://public.support.unisys.com) and choose “Documentation” in the “Public Information” box located on the left-hand side of the screen. No special login is needed.

We also encourage you to view the list of available [AB Suite training courses](#). These courses are a great educational resource and include a lot of graphics, interactivities, simulations, and demonstrations with voice-over narration.

And for even more training and educational resources, please visit the [Unisys Education & Training web site](#) and check out the [AB Suite Course Catalog](#).

In addition, the AB Suite 5.0 field test is scheduled to run from September 15 to October 17, 2014. Planned for December 2014, AB Suite 5.0 will be a major release with many exciting new features. Your participation in the field test will play an important role in confirming that this release works well in your environment. Participating in the field test is also a great way to get an advance look at AB Suite 5.0 and confirm you can make a quick, safe update upon its release. Please contact [Diane McGonigle](#) if you’d like to participate.

## Mark your calendar for these upcoming events:

WHAT	WHERE	WHEN
<a href="#">Future Matters – ClearPath Briefing</a>	Oxford, UK	May 20, 2014
<a href="#">Future Matters – ClearPath Briefing</a>	Breda, the Netherlands	May 22, 2014
<a href="#">Future Matters – ClearPath Briefing</a>	Paris, France	June 24, 2014
<a href="#">Universe Conference</a>	Dallas, Texas	October 13-15, 2014
<a href="#">EAE/AB Suite Symposium</a>	Dallas, Texas	October 13-15, 2014
<a href="#">European EAE/AB Suite Technical Seminar</a>	Amsterdam, the Netherlands	October 21-22, 2014

*Please note that all ClearPath Briefing events will include an AB Suite update presentation.*

Specifications are subject to change without notice.

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