UNISYS

Developing Agility

*A Newsletter for Unisys EAE
and Agile Business Suite Customers*

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The Strategic Value of EAE and AB Suite for MCP Users

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

It is easy to see why Enterprise Application Environment (EAE) and Agile Business Suite (AB Suite) are considered strategic products for both Unisys and its ClearPath MCP program – more than 30% of the total MCP user base runs either EAE or AB Suite for their core applications. And, they're also leveraging Unisys vertical solutions developed in EAE and AB Suite, including Unisys Financial Services System (UFSS) and Unisys Voice Messaging Solution (UVMS).

If your organization does not currently count itself as part of the 30% running EAE or AB Suite on ClearPath MCP, then read on to learn more about the value and strategic benefits the combination of ClearPath MCP and EAE and AB Suite can deliver.

First and certainly foremost, moving to the MCP environment means you'll be able to seamlessly transfer over the investments you made in building and modernizing your EAE and AB Suite applications. This will help you realize a lasting return on investment (ROI) and maximize the amount of time your end users can benefit from these applications.

In fact, what we have seen in many organizations is that the longer an application remains in use, the more proficient end users become. Because they know exactly how to make the best use of their application, they are able to do more in a given day and work in truly innovative ways. Plus, this familiarity means that end users are quite adept at communicating with developers and suggesting changes that will improve the business value of the application. In addition, since EAE and AB Suite applications are easy to modify, making incremental updates is a simpler process than with similar, custom-built applications or packaged solutions.

Greater Productivity, Resiliency, and Security

The AB Suite development environment has been enhanced significantly over the past few years, contributing to further productivity gains. The solutions generated by AB Suite will provide consistent service to end users, while taking advantage of the newest features introduced by the MCP environment. While these improvements are typically transparent to end users, they provide new levels of efficiency for the underlying solution.

Running your AB Suite built applications on MCP also helps you improve the resiliency of your core business applications, giving you an extremely high level of availability. What's more, in the event of a fault in the environment, your users will also benefit from the short recovery times provided by the native DMS II database recovery facilities. If an issue arises with a transaction in DMS II, the recovery process reverts back to the latest sync point to perform subsequent transactions. This takes minutes, and does not require you to load the backup database and re-run all transactions to get to the same point, as you might have to do in a Linux®, UNIX®, or Microsoft® Windows® environment.

In addition to the recognized security benefits inherent in the MCP environment, including robust access controls and a strong resistance to viruses, the AB Suite Runtime Transfer Utility eliminates the need to recompile your application on each host ClearPath mainframe – helping you consistently and securely manage releases across production systems. As you can imagine, a production system without compilers installed is more secure than those with compilers. >>

The Benefits of an Integrated Development Approach

Both AB Suite and the MCP environment are developed by the same R&D organization – an integrated approach that means the combination of these two products will only get stronger year by year. (For an in-depth look at the value this approach delivers, please see this issue's <u>Engineering Corner article</u>.)

This close-knit development organization means that additional features in the MCP environment can be enabled by the AB Suite team via a release of either a new version of AB Suite Builder or the AB Suite Runtime environment. And since Builder and Runtime take advantage of new MCP features without any required actions on your part, your generated applications will automatically leverage the new features of MCP and AB Suite – transparently and without disruption.

This integrated approach makes it easier to quickly and effectively resolve any support needs. All you need to do is place a call to Unisys Support for answers to your questions. Our support specialists know both environments very well and can quickly provide a useful workaround. For more complex issues, the Unisys support teams work together behind the scenes to fix the issue, regardless of whether it occurred in the MCP environment or AB Suite. This seamless response is what the market calls "integrated stack support."

We also recognize how important it is to deliver predictable performance. Fortunately, this is one of the strongest qualities of the combination of MCP and AB Suite. As with new product releases, the MCP and AB Suite R&D teams work in tandem to create performance improvements that are aligned with today's business and IT demands.

Our intention is clear: We remain committed to ensuring that ClearPath MCP and AB Suite continue to deliver the highest levels of reliability, availability, performance, and stability possible, so you can realize the strategic benefit that only this combination of technologies can deliver.
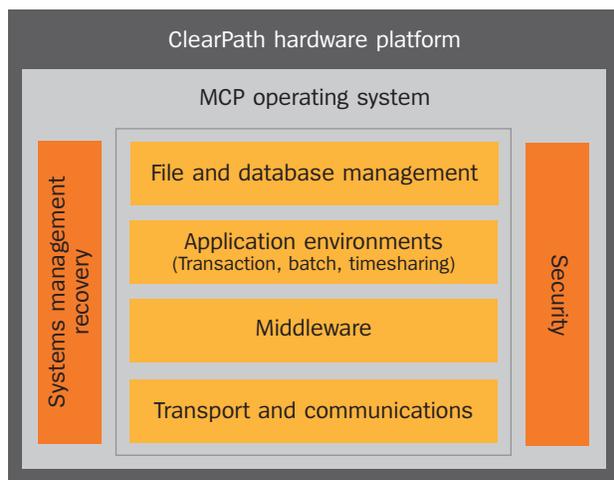
The ClearPath Integrated Stack

It has been an ongoing objective of IT professionals to leverage computing resources that deliver an optimal blend of performance, reliability, and cost efficiencies. In the last decade or two, the means of achieving this goal has been to source hardware and software products from multiple vendors – because, it was assumed, choice equaled greater performance and lower costs. That view is now changing.

As more and more companies begin to re-evaluate what it takes to manage, run, and support a heterogeneous environment with products from a range of individual providers, there's a renewed appreciation for the value of the integrated stack – which has long been a hallmark of Unisys ClearPath mainframes.

There are numerous benefits to running your applications in an environment where the hardware and software comes from the same vendor and are built from the ground up to work together, including:
• Everything is designed, developed, and tested by Unisys, substantially reducing or even eliminating your integration efforts
• Greater performance, availability, reliability, and security
• Hardware and software updates are able to optimize the complete system. For example:
  – Implementing special hardware functions
  – Creating specialized interfaces between components
• No requirements to change applications following hardware or software releases
• A single licensing model and support contact for both software and hardware

Components of the ClearPath integrated stack.

If you'd like to learn more about the value delivered by Unisys integrated stack model, please read "Unisys ClearPath Systems Integrated Hardware/Software Stacks," a white paper by Peter Bye, on Unisys.com.

Engineering Corner: The Benefits of Engineering Synergy

By Alan Hood, Consulting Engineer, Agile Business Suite, Unisys TCIS

As we've noted elsewhere in this issue of Developing *Agility*, the ClearPath platform is widely regarded as an "integrated stack" because all of the core hardware and software components are built by Unisys.

From an engineering perspective, this creates a significant advantage because the owners of the operating systems, compilers, databases, and application development software are all colleagues and work together within the same organization.

Despite the flexibility of our products, sometimes a customer will request a change in EAE or Agile Business Suite that just isn't possible because the functionality is based on an underlying constraint of the operating platform. In such a case we usually need to wait for a change from the vendor, or more commonly, figure out how to update the application to work around the issue. However, given the integrated nature of the ClearPath platform, we benefit from additional flexibility that allows us to make changes to the platform itself.

For example, most ClearPath users never need to worry about the size of their databases, but from time to time a need arises that makes it very important to understand its limits. We had such a situation with a customer that was anticipating a huge increase in their business, and needed to add new Ispecs to a mission-critical EAE application in response. But, they were already close to the maximum of 1,000 allowable structures in DMS II. So, how could they add this new functionality to the existing application model without exceeding the limit?

How Many Ispecs Can I Have in EAE?

Before we outline the ways we helped the customer overcome this difficulty, it's important to first understand exactly how Ispecs are counted in EAE.

A lot goes into defining an indexed network database, but with DMS II there are two main things we need to be aware of: datasets and sets/subsets (or index sets). With EAE, the Ispec objects that result in a specific database entity are defined as special structures called datasets, whereas profiles are generally referred to as index sets. However, that does not mean you can have a maximum of only 1,000 Ispecs in EAE. The answer is slightly more complicated.

First, only Output or I/O Ispecs result in any sort of database structure, while Input Ispecs do not. Second, all Event Ispecs go into the same dataset in DMS II. So, 10 Event Ispecs would result in only one dataset, whereas 10 Output components would result in 10 unique datasets. However, each profile will result in the creation of an index structure.

So, in DMS II, the maximum number of datasets that can be defined is 1,000, whereas the maximum number of structures (including sets and datasets) is 4,000. >>

The Problem

Now, the customer in question had already defined close to 1,000 Output or I/O Ispecs, so they were pushing the limit of allowable datasets, even though they had nowhere near 3,000 profiles. The company estimated it would need to add about 200 new Ispecs plus several new profiles to their EAE model to accommodate the functionality it needed to address new business demands.

However, they did not want to split the functionality into two separate models, as that would require additional time-consuming work and create several new interfaces to manage. So, the customer asked us if there was any way to circumvent the structures limit in DMS II.

The Solution

Leveraging the integrated nature of our engineering organization, Howard Bell of the EAE Engineering team, and Malcolm Kam, head of the DMS II team, put their heads together to find a fast, effective way to solve the customer's problem.

They determined that pushing the limit of structures beyond 4,000 would necessitate major structural changes to DMS II. But, since the database itself is always generated within EAE, they discovered that there was some leeway in the distribution of the datasets and other structures.

It is generally considered that well-designed EAE models will have no more than three profiles per Ispec on average. Hence, an application with 1,000 Ispec datasets could have up to 3,000 profiles. That is primarily where the limit of 1,000 datasets out of 4,000 structures comes from.

However, because this customer's application used considerably fewer profiles, the team determined that it would be possible to increase the limit on the number of datasets beyond 1,000, so long as the total of 4,000 structures was not exceeded.

After working directly with the customer's model, our engineering teams increased the dataset limit for EAE and AB Suite applications to 1,500. As Howard Bell of the EAE Engineering team notes, "one of the factors that made this possible was the fact that the infrastructures behind EAE and AB Suite – Runtime and Developer, specifically – required no changes to accommodate the increase in dataset numbers."

Moreover, this change worked because DMS II leverages an existing EAE/AB Suite DASDL compiler control option, "LINC14." "With LINC14, we were able to increase the maximum number of datasets to 1,500 on the DMS II side of the equation in a way that is largely invisible to EAE users," explains Malcolm Kam of the DMS II team. At generate time, if the application model attempts to exceed either the 4,000 structure or 1,500 dataset limits, a syntax error will occur during deployment when the DASDL source is compiled.

It is also important to note that the LINC14 option is supported only for EAE/AB Suite generated DASDL. Other applications cannot use the LINC14 option and will not be affected by this change.

As this story shows, the integrated nature of our engineering organization enables us to work closely with one another and leverage our expertise and resources to make sure our customers' EAE and AB Suite applications will facilitate future growth. The changes described here were made in EAE and DMS II, and delivered as a custom engineering request in a matter of weeks, and have since become a part of the standard product.

Wondering what our integrated engineering approach can do for you? Then please contact us at ABSuite@Unisys.com.

The AB Suite Developer Learning Process

By Diane McGonigle, Agile Business Suite Migration Manager, Unisys TCIS

As companies plan and execute the move from EAE to Agile Business Suite, it's incredibly important that they take the necessary steps to familiarize themselves with the new environment, so they can immediately make valuable contributions to their organizations when AB Suite goes live.

Based on the real-world experience of customers, we have defined a sequence of recommended training programs that will help EAE developers become comfortable and productive with AB Suite Developer. By following this step-by-step approach, your organization will be well on its way to a positive experience with AB Suite.

Step 1: Getting Started with AB Suite Developer for EAE Users

This course introduces the basic building blocks of AB Suite using concepts and terminology that are familiar to EAE developers.

Timing: Each organization's training plan will be slightly different depending on the number of developers, EAE applications, and migration approach. That being said, this course should be taken at the start of the migration project, especially by members of the development team who are actively involved in moving applications to AB Suite.

Type: This onsite course is led by a Unisys instructor and features a significant number of hands-on exercises.

Pre-requisites: Experience developing EAE applications.

Duration: Three days.

Step 2: Self-Paced Reinforcement Activities

Once the initial training is completed, we recommend that you continue the learning process by working through many of the available reinforcement activities. Examples of reinforcement activities include reviewing a migrated model from EAE and noting which key properties are set for Usage I/O; examining logic and reviewing differences in data item qualification; and creating a new Ispec using the sample model from Step 1 and adding the Prepare and Main methods to it.

Timing: Complete one or two activities a week during the migration and testing phase of the project. Please note that it's best to begin your reinforcement activities shortly after completing Step 1, so the concepts of that course are still fresh in your mind.

Type: Self-directed training.

Pre-requisites: Getting Started with AB Suite Developer for EAE Users (Step 1, described above).

Duration: N/A – activities should be completed on an ongoing basis following Step 1. >>

Step 3: AB Suite Developer Intermediate Course

Once you have moved AB Suite into production, this course will provide the knowledge required to maintain your migrated EAE models with AB Suite Developer and keep the business functioning smoothly as you gain experience with a new development toolset. A key objective of this course is to help you learn the best way to perform such routine application development activities as creating a report, creating or modifying an Ispec, or adding a web service to your application.

Timing: It is important to schedule and complete this course during or immediately following the cutover of the application to production.

Type: A blend of formal, instructor-led sessions and informal mentoring. A Unisys instructor will remain onsite during the production cutover to provide training, answer any questions you have as you work with the migrated application, and adapt the program to fit your requirements.

Pre-requisites: Steps 1 and 2 should be completed prior to taking this course.

Duration: Eight to ten days.

Step 4: AB Suite Developer Advanced Topics

When you're ready to do more with AB Suite, this final step will teach you how to improve application architecture and maintainability by leveraging the Object-Oriented concepts in AB Suite. Key areas that will be covered include refactoring, encapsulation, polymorphism, generalization, and composition.

Type: This step is in the design stage right now, but the intention is to offer it as an instructor-led course with some multimedia supplements. Look for an update in a future issue of Developing *Agility*.

If you have any questions about the AB Suite Developer learning process, or are ready to get your training program started, please contact me at diane.mcgonigle@unisys.com.

Spotlight On: Harris School Solutions

Formed in 2006, Harris School Solutions is a leading provider of information systems for K-12 school districts across the United States and Canada. Since it's founding, Harris has amassed over 4,000 customers across North America, all of whom rely on the company to manage such areas of operation as student information, school nutrition, transportation, attendance and time tracking, financial management, and student activities accounting.

Because the number of school districts that Harris can serve is essentially fixed, customer retention is a point of intense focus for the company. To this end, Harris provides what it refers to as "software for life" – solutions backed by a commitment to upgrading and extending the underlying technologies in line with customers' changing business and IT needs. One such technology Harris has significantly updated to deliver on this promise is SchoolMax, a school administrative management solution.

Originally an EAE based application, Harris has continued to enhance the SchoolMax solution to help districts address such challenges as better integrating the No Child Left Behind Act, driving efficiencies and cost reductions, tracking teacher certifications, and improving data capture and reporting. Recognizing that incorporating future mandates and considerations into SchoolMax required a modernized .NET development environment that could leverage the newest Microsoft technologies, Harris chose to migrate the solution from EAE to Agile Business Suite.

AB Suite Migration Delivers Simplicity, Business Value

Moving SchoolMax to AB Suite provided the flexibility Harris needed to fulfill the "software for life" commitment and align the solution with districts' evolving needs. In addition, Harris has found that the migration to AB Suite has helped districts simplify much of the back-end IT activities associated with managing and maintaining the solution.

For example, because the AB Suite version of SchoolMax supports Microsoft SQL Server®, which many districts already have in place, Harris customers no longer need to manage the dedicated Oracle database that was required with the EAE version of the solution. Likewise, the migrated solution is also compatible with Microsoft Windows 2008, another technology many districts are leveraging for other purposes. This way, users will be well equipped to maximize their existing investments, while eliminating the need to devote valuable resources to maintaining aging, underutilized technologies.

Harris has already migrated nine school districts to SchoolMax running on AB Suite, and plans to bring the remaining users over to the new version throughout the year. Customers have found implementing the updated solution to be a transparent process that does not interrupt day-to-day operations or force them to work in unfamiliar ways. And since there is no need to spend time and money retraining users on the new version, districts are able to easily deploy SchoolMax and quickly take advantage of what it has to offer.

To learn more about Harris School Solutions, SchoolMax, and its other solutions and services, please visit www.harris-schoolsolutions.com.

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UNITE 2011 Conference Summary

The 2011 annual conference for UNITE, the International Unisys User Association, was held from May 22 to 25 in Anaheim, California. As with every UNITE conference it was a great opportunity to learn about what's been going on in the EAE and Agile Business Suite worlds, reconnect with old friends, and meet some new faces.

The EAE track, which was comprised of content related to both EAE and AB Suite, had a busy schedule yet again this year. Sessions ranged from the informational to the technologically intensive. The track featured 14 sessions in all.

Highlights included a report on the status of the overall AB Suite program, a case study about user interface modernization, "how-to" sessions, detailed technical presentations, six hours of hands-on labs, and much more.

In addition, Jan Piet Slot, from Post & Co., came all the way from the Netherlands to be featured in a user profile telling us about what he's learned and experienced after having AB Suite running in a production environment for the last four-plus years.

What Attendees are Saying About UNITE 2011

"I find the three days of intensive and in-depth presentations to be an incredible way to obtain knowledge in a pretty economical fashion. Since returning from the conference, MDV has been presented with two tremendous business opportunities that we would not have been able to step into without the flexible technology stack and educational opportunities available at UNITE."

– Michael Easter, Vice President of Information Technology/Military, MDV Nash Finch, and EAE track planning vice chair

"UNITE is a great opportunity to meet industry peers and discuss what they're doing with the same technologies. Topping that is the opportunity to talk with the Unisys personnel who develop the software we use and to actually share our thoughts on what could be included in future releases."

– Ina Boeke, Assistant Vice President, Information Services, United Fire Group, and EAE track planning chair

If you are a UNITE member, you can access all of the presentations from the 2011 conference at the UNITE web site. In addition, you can visit our web site to view the EAE and AB Suite sessions presented by Unisys personnel.

Do you have questions about the benefits of being a UNITE member? Would you like to attend UNITE 2012, or better still, present on a topic related to your experiences with EAE, AB Suite, or ClearPath systems? Then please contact UNITE at www.unite.org, or write to us at ABSuite@unisys.com.

Info Center and Calendar

Did You Know?

- EAE Developer has been qualified for Microsoft Windows 7 with EAE Interim Correction (IC) release 3.3.3270.
- EAE Version Control has been qualified for virtualized Windows 2003 environments running under Windows 2008 R2 in EAE IC 3.3.3280.
- The Thomasville Utilities case study is available on Unisys.com – read on to learn about TU's successful migration to Agile Business Suite and the value it has realized following the move.
- The AB Suite 2.0 evaluation CD has been released. With it, you'll get a 90-day, no-charge license that allows you to test the software and explore the AB Suite development environment. You must have Microsoft Visual Studio® and Microsoft SQL Server to run the CD, and please note that you cannot generate any actual application code when using the CD.

Reference Materials Available from Unisys Support Site

The Documentation Libraries available in the Public Information section of the Unisys Support Site hold a wealth of information for EAE and AB Suite users alike.

This resource contains more than 50 AB Suite HowTo documents. New additions include:
- Address Client Tools Simplification Queries
- Use Application Pooling and Recycling in Windows Runtime
- Use DataReader in Windows Runtime
- Use Registry Keys with Windows Runtime

Other recent additions to the Quick Start tutorials, demonstrations, white papers, and utility information include:
- **Demo:** Adding Class Using Class View
- **Demo:** Adding Ispec Using Class View
- **Demo:** Adding Report Using Class View
- **Demo:** Navigating Within Class View
- **White Paper:** System Modeler and Source Control
- **White Paper:** System Modeler Usability Enhancements
- **White Paper:** Using Public Model File

EAE and AB Suite software qualification and support matrices are also posted in the Public Information section.

And, you don't need a special login to access these materials. Simply visit public.support.unisys.com, choose "Documentation" in the "Public Information" box located on the left-hand side of the screen, agree to the terms of service, and you're good to go. >>

CBTs

We encourage you to check out the Unisys Customer Education website – especially if you are interested in finding out more about computer-based training (CBT) options for EAE and AB Suite.

The computer-based training CD-ROMs can be ordered any time by contacting UnisysCustomerEducation@unisys.com. Phone orders are accepted in the U.S. by calling 1-800-222-0966, Prompt 1.

Upcoming Events

What	Where	When
EAE/AB Suite User Meeting	Amsterdam, the Netherlands	September 8, 2011

If you have any questions that are not answered by the links listed above, please send us an email at ABSuite@unisys.com.