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Enabling the Application Era

By Brian Herkalo, Director, Global ClearPath Forward Product Management, Unisys



The IT world has never moved this fast.

Trends appear seemingly overnight, then disappear just as quickly. A new, lucrative opportunity to monetize a product or service – and drive real differentiation – may only be available for a week before it's adopted by everyone else. And disruptive upstarts continue to flood the market, upending established business models and tilting the competitive playing field away from traditional players.

The pace with which change happens today makes it clear that many companies will need to rethink their current IT structures. To help these environments reflect where the industry is headed next, we've developed a rich set of products and services designed from the bottom up with the future in mind.

To that end, we've taken many steps over the last few years to evolve the ClearPath Forward™ program in a manner that prepares it to serve as an integral component of tomorrow's IT world: the tightly integrated, hybrid cloud environment.

Answering Change with Innovation

This journey to the hybrid cloud is rooted in a strategy we introduced in 2006 to move future ClearPath Forward systems away from proprietary architectures and toward an industry-standard, all Intel® foundation. >>

This shift, which reached its apex with the release of the most powerful ClearPath Forward Libra and Dorado systems we've ever built, resulted in a set of systems that delivered increasingly high, predictable levels of performance, resiliency, and scalability. Since 2015, all ClearPath Forward systems are Intel® based.

It also helped us be less reliant on unique hardware than we were in decades past, enabling our systems to function as self-contained, software-defined compute environments. Doing so paved the way for the [ClearPath® Software Series](#).

The Software Series shows us taking a decidedly software-centric approach to IT. We're increasing the flexibility with which clients can develop applications, enrich their skills, and support entry-level production workloads.

Plus, by making our core operating environments independent from the hardware to which they were historically tied, we're helping clients deploy ClearPath MCP and OS 2200 software in more ways, and in more places, than they ever could. This way, they can freely support their unique business and market needs in the most optimal manner possible.

More importantly, they have greater freedom to focus on their applications.

The Future is Here

This turn towards application centricity represents the next logical step in our gradual transition to the hybrid cloud. It's a way to protect clients' long-standing investments while simultaneously equipping them to create and release innovative new capabilities.

Prioritizing applications to this degree effectively redefines the concept of "the data center." It's no longer the single, massive facility it once was. Rather, it's now a mixture of on-premise systems and public and private cloud infrastructures, all deployed in a manner that optimally serves the organization's unique application requirements.

Moreover, today's application-focused mindset proves companies want to be in the business of their businesses, not the business of IT.

With the new direction the ClearPath Forward program has taken – and the advances and innovations that come with it – we're making Agile Business Suite (AB Suite®) a key enabler of the application era.

Just consider [ClearPath MCP Developer Studio](#). A ClearPath Software Series deliverable compatible with AB Suite, Developer Studio enables teams and individual developers to work simultaneously within a single system. This greatly increases flexibility and efficiency, while shortening the time required to push new capabilities into production. Plus, Developer Studio can now run on an industry-standard x86 infrastructure, Microsoft® Windows Server®, or even a VMware® ESXi™ hypervisor.

Likewise, with [ClearPath MCP Bronze and Silver](#), two entry-level Software Series products that support an AB Suite workload, clients can deploy an entire, integrated operating environment on an x86 platform, as well as an ESXi or Microsoft Hyper-V® hypervisor.

And the newly released [ClearPath Visual IDE](#) provides a Microsoft Visual Studio® plug-in that lets developers create projects, edit ClearPath MCP source files, and build solutions using the familiar Visual Studio interface they already employ for development in AB Suite and other languages.

Offerings like these illustrate how AB Suite extends and benefits from the way we've reshaped the ClearPath Forward program over the last two years.

It's no longer as reliant on hardware as it used to be. It's being outfitted to reside on the industry's most popular virtualization layer. And it's enriched by capabilities that improve the speed with which companies develop and deliver innovative new applications.

It's about getting ready for the hybrid cloud. It's about being ready for today and building for the future.

AB Suite and ClearPath MCP: A Great Combination

By Thangathen Ponnusamy, Global Product Manager – Enterprise Application Environment and Agile Business Suite, Unisys



Agile Business Suite accelerates development through a model-driven approach that enables developers to build applications in far fewer statements than other software programming languages.



ClearPath MCP is one of the safest and most secure enterprise-class operating environments available today. With high levels of reliability, capacity, resiliency, data Integrity, and manageability, it's more

than equipped to run some of the world's most demanding applications.

So when you combine AB Suite with ClearPath MCP, you'll benefit from the unique, unrivaled ability to generate complete, high-volume, business-critical applications. And you can enrich your applications with capabilities that help you maximize the business value they deliver, maintain exceptional security and data integrity, and achieve excellent runtime performance and availability. Plus, you'll scale to address emerging demands and remain flexible enough to accommodate whatever the future holds.

Business Value

The tightly integrated MCP software stack helps you increase efficiency and lower resource requirements, reducing the time to implement new releases, as well as the associated cost and risk. MCP systems can handle hundreds of critical applications of different types under a single operating system instance, significantly increasing operational efficiency.

This efficiency is bolstered by Agile Business Suite Developer, a powerful tool that enables developers to work collaboratively with business users. Built as a package within Microsoft Visual Studio, it brings model-driven techniques and the ability to generate complete software solutions to the MCP environment.

Security

Security is at the core of ClearPath MCP systems. It's built into every level of the environment and spans every component – architecture, hardware, firmware, software, middleware, databases, and applications.

AB Suite for MCP builds on this unparalleled security by allowing you to specify the encryption algorithm used when copying files to tape. You can also automatically encrypt tapes as you copy database files.

And, the Data Mask feature allows persistent attributes to be obfuscated in the DMSII database. You can set it so the entire database follows the same methodology for masking data. Or, you can have each structure in the database use a different method to scramble the data content. You even have the option to enable each record in the structure to apply its own methodology to scramble data. Plus, you have the freedom to specify when to protect the database and audit or dump files. >>

High Availability and Performance

MCP systems emphasize the importance of availability and performance. For example, the ability to make software and hardware upgrades online minimizes planned downtime. Likewise, the environment can sustain high transaction rates and consistent response times across multiple applications – all under a single instance – even when operating at close to 100% utilization.

The proven, enterprise-class, high-volume DMSII database helps to maximize performance in AB Suite on MCP environments. You have the freedom to reorganize it while still keeping the database accessible during the reorganization process. Or, you can choose to restrict access until the entire reorganization completes.

Likewise, you can activate features that provide uninterrupted access to production database structures during a background reorganization, preserve the RSN value of new records created during reorganization, and reorganize a database copy without the delays that stem from excessive I/O operations. What's more, you can prevent fine table locking on a profile when the entries are deleted, potentially increasing system performance.

Scalability

The ClearPath MCP environment offers unparalleled scalability. You can start with a small environment and build it out over time, as business needs dictate, without ever having to change your applications.

This scalability extends to the AB Suite environment, enabling you to take advantage of larger database and COBOL sizes and further expand your applications. For instance, AB Suite on MCP supports a Memory Size and Sort Disk Size of up to 99,999,999 kilo words. Larger DMSII limits allow reports to accept higher values, and longer persistent strings are now supported, as well.

Flexibility

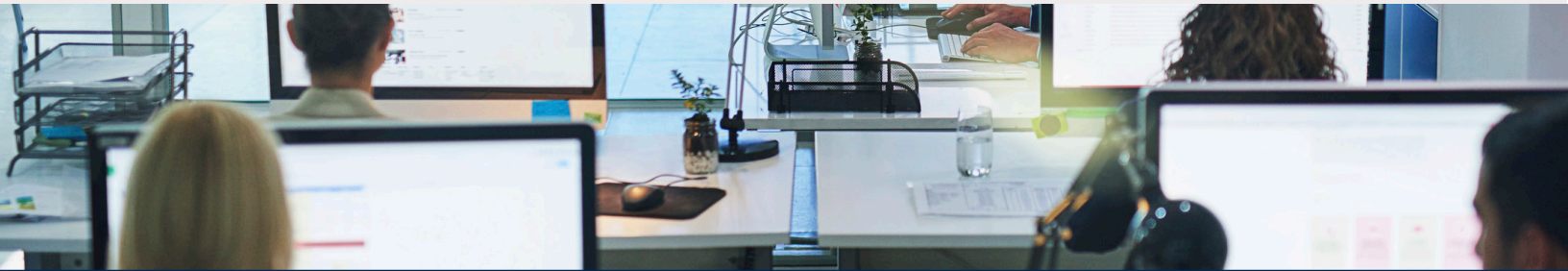
Combining MCP and AB Suite means you can leverage the power and flexibility of the [ClearPath Software Series](#). A suite of software-only deliverables, the Software Series lets you develop, test, and deploy ClearPath applications onto the industry-standard x86 hardware of your choice.

[ClearPath MCP Developer Studio](#) is a Software Series offering designed to support both development teams and individual developers. And best of all, MCP Developer Studio includes a development/test license for the AB Suite runtime software.

Another Software Series deliverable, the [ClearPath MCP Bronze and Silver](#) products give you a fully featured, software-only version of the MCP environment designed to run on any x86 system that meets specific reference architecture guidelines. You even have the option to deploy MCP Bronze and Silver on VMware ESXi or Microsoft Hyper-V. An AB Suite workload is available for both products.

AB Suite on MCP creates business value by making it possible for you to maximize such critical attributes as security, agility, resilience, and innovation. Please do not hesitate to contact us at ABSuite@unisys.com if you'd like more information about running AB Suite in the MCP environment.

EAE to AB Suite Upgrade: It's Time to Take Off



The last two issues of *Developing Agility* have detailed specific aspects of the EAE to Agile Business Suite upgrade process. From [outlining the checklist](#) that can help you get started to covering what to expect during an [EAE to AB Suite Assessment service](#), we wanted to give you a firm understanding of how the process unfolds and what it might look like in your organization.

Now, though, we want to take a step back and discuss our upgrade approach as a whole – why it's different, as well as the value it brings to your organization.

As the company behind the development platform you're using today – and the one you'll be leveraging tomorrow – we're a natural fit to guide you through the upgrade process. After all, we're deeply familiar with the EAE and AB Suite software, and essentially defined the steps required to move between the two.

Plus, the decades of experience and best practices we bring to the table mean we're able to craft an upgrade plan that accounts for all critical considerations while also reflecting your unique requirements, challenges, and goals – all so you can make the move with as little impact on “business as usual” as possible.

To that end, our upgrade approach features several pre-defined steps that focus on the following key areas:

- **Leveraging the Assessment Workshop output** to show you how to optimally leverage AB Suite and its new features.
- **Documenting the current EAE environment**, so you can see how best to plan for, upgrade to, and deploy AB Suite.
- **Understanding how the AB Suite architecture can benefit your environment** in terms of implementing new development approaches, exploring configuration management and architecture options, leveraging additional object-oriented features, and more.
- **Benchmarking, performance, and sizing analysis**, so the requirements of your new AB Suite environment are clear prior to executing the actual upgrade.
- **Planning the entire upgrade project**, including:
 - Clearly defining such key milestones as entry and exit criteria, required resources, roles and responsibilities, and interdependencies.
 - Identifying the critical phases and key metrics that will help you develop, adopt, and follow a customized project plan. >>

When you work with us to plan and execute your EAE to AB Suite upgrade project, you'll be able to:

- Create mutually agreed-upon timelines, task lists, deliverables, milestones, and SLAs
- Right-size and effectively configure your systems for optimal performance
- Minimize touch points while improving efficiency and increasing productivity
- Leverage proven, internally developed tools, templates, and automation techniques
- Access the top-level expertise and best-practice experience gained from guiding numerous upgrade projects around the globe
- Leverage a suite of training and learning materials designed to help you address virtually any scenario or requirement that might emerge during your upgrade

Please [visit our web site](#) to learn more about the benefits AB Suite can bring to your business. And if you're ready to upgrade, please contact your Unisys sales representative to get started.

Complementary Services

We offer a number of services built to address many aspects of your AB Suite environment, such as:

- Training on the Visual Studio development environment
- Training and consultancy on how to leverage Microsoft Team Foundation Server for AB Suite
- Advisory and implementation services to help your AB Suite applications address near-term and future requirements

Q&A: Developing Great User Experiences with the AB Suite Client Framework



Rinu Sunil



John Papachristos

Rinu Sunil, a user experience lead, and John Papachristos, a user interface architect, are members of the Unisys India Technology Center (InTC).

We recently spoke with Rinu and John about their team’s experience with user-centric design, and how tools like the Agile Business Suite Client Framework, Microsoft Windows Presentation Foundation (WPF), and the Microsoft ASP.NET Model-View-Controller (MVC) can help you create cutting-edge UIs with ease.

Developing *Agility*: Your team developed the UIs for the “Petshop” sample application. Please tell us about the approach you followed and the tools you used.

Rinu Sunil: The Petshop application was developed to demonstrate the intuitive and highly engaging user interfaces that can be built with the AB Suite Client Framework. It’s a sample eCommerce application built to simulate the experience of shopping for pet food and related products online. It also has a desktop/tablet UI that provides system administration capabilities and can also be used over the counter to search for and purchase products.

We built it following our team’s user-centric design principles. That meant collaborating with AB Suite architects and engineers to understand the needs of the application’s administrators and end users.

We paired these inputs with a UI design methodology that starts with research and analysis, moves to conceptualization and design, and ultimately

ends with fully developed features delivered to engineering. We employed a variety of popular tools and technologies to prototype and test the UI designs, including Adobe Photoshop and Illustrator for design, JavaScript and Bootstrap 3 for HTML conversion, and Firefox responsive design view for UI testing.

DA: Could you tell us about the basics of WPF and MVC? What do they offer Unisys own developers and what do they offer our clients’ end users?

John Papachristos: WPF and MVC are both leading-edge Microsoft technologies for developing rich UIs on desktops and browsers, respectively.

Use WPF when you want the performance of native Windows desktop applications along with the feature-rich set of UI controls in Visual Studio and other third-party control libraries and frameworks.

MVC helps you develop Internet/Intranet applications that are hosted in Microsoft Internet Information Services (IIS) and accessed via a web browser. These are typically developed using HTML5, CSS, and JavaScript technologies, and can be multi-page or single-page applications depending on your needs. They can also include responsive design to support desktop, tablet, and smartphone browsers. >>

DA: What makes the combination of the AB Suite Client Framework, WPF, and MVC so strong?

JP: The strength lies in using the Client Framework to automatically generate and scaffold WPF and MVC projects based on the Data Models created from the Ispec definitions in AB Suite.

With these industry-standard technologies and interfaces, teams are able to work in clearly defined areas. For example, AB Suite developers can focus on the host application business logic and interface definitions required by the client applications. UI developers, meanwhile, can build an interface that reflects internal and external requirements. And the application integration team can implement the UI designs, as well as the infrastructure required to perform the necessary transaction to the AB Suite system.

DA: How much do UI developers need to know about AB Suite to design in WPF and MVC?

RS: Strictly speaking, UI developers don't need any specialized AB Suite knowledge to design UIs for WPF and MVC. All they need to be concerned with is knowing how the UI should look, flow, and behave from a user perspective.

DA: How can our clients make use of your team to get their AB Suite solutions modernized? What type of services do you offer?

RS: Anyone looking to modernize their AB Suite solutions can reach out to us for help refining the application's UI and overall user experience, designing a new standalone or desktop UI, building fixed and responsive UIs, and designing for smartphones and tablets, as well as for general UI-related consultation.

In most cases, we recommend beginning with a pilot project. To get started, please reach out to your Unisys sales representative or contact us at ESBO@unisys.com.

Beta and Beyond: Agile Business Suite 6.1 Progress Update

By Andrew Lee, Principal Engineer, Technology Systems Software Development, Unisys



Our engineering team has been hard at work readying Agile Business Suite 6.1 for its release in the fourth quarter of this year.

As part of this effort, a number of AB Suite users participated in two AB Suite 6.1 beta tests over the last several months. They provided feedback on early versions of new features, helped us identify and fix unusual bugs, and shared ideas that allowed us to fine-tune feature designs so they better reflect real-world scenarios.

As AB Suite 6.1 is being developed using Agile methodologies, each beta test represents a snapshot of the release as it increases in both content and maturity. Therefore, later beta tests generally involve a larger number of participants, as well as a larger set of features.

The snapshot of AB Suite taken for the **Beta 1** test included largely complete versions of three features.

The new Logic Editor feature replaces the custom AB Suite logic editor with one based in Visual Studio, providing a more modern experience that includes syntax highlighting, improved auto completion, and richer formatting and navigation capabilities. Updated DMSII features include support for Staged Reorganizations, Dynamic Schema, and small Overlaygoal values. And AB Suite on Windows users receive an in-built XML processing mechanism aimed at enhancing integration with XML-rich ecosystems.

Aside from identifying a number of bugs and inconsistencies, our Beta 1 test also highlighted some usability improvements with Interfaces.

Encouragingly, the feedback on the new Logic Editor was positive enough that we decided to enable it by default.

The recently completed **Beta 2** test introduced AB Suite integration with WebAppSupport and Team Foundation Build to the mix.

The WebAppSupport feature for AB Suite on ClearPath MCP provides the infrastructure to call out to web services. It's updated in AB Suite 6.1 to enable you to import and call the WebAppSupport entry points directly from the AB Suite application, making it possible to natively call web services. Meanwhile, AB Suite on Windows users that are considering Team Foundation Server for their application lifecycle management needs can now automate builds using the Team Foundation Build capability.

Building on top of the features available in Beta 1, the Beta 2 test also increased the number of in-built MCP DMSII limits, such as DMSII Resident Limits, Population Limits, and DUMPSTAMP granularity. Additionally, the XML processing feature added a new modelling mode, called the "XML Framework," which aligns the existing Client Framework mode with the XML processing model enhancements to form a unique modelling mode for future AB Suite development.

A very special "thank you" to all of our beta testers. AB Suite 6.1 is better off because of your time and commitment.

Info Center



New additions to our libraries of How To documents, white papers, and other useful information include:

- **How To:** Use Registry Keys with Windows Runtime (**Updated**)
- **White Paper:** External Classes in AB Suite 2.0 (**Updated**)

Additionally, the “Software Qualification and Support Matrix” documents for AB Suite releases 2.0, 3.0, 4.0, and 5.0 have all been updated.

To view these and other resources, simply go to 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.

In addition, there are several pieces of thought leadership available on the [AB Suite homepage](#):

- [AB Suite in the Application Lifecycle](#)
- [Agile Development with Agile Business Suite](#)
- [Unisys Agile Business Suite: Capitalize on Change, Don't React to It](#)

We also encourage you to view the list of available [AB Suite training courses](#). A blend of instructor-led and computer-based trainings, these courses include a lot of graphics, interactivities, simulations, and demonstrations with voice-over narration.

Please be sure to visit the [ClearPath Forward Client Education homepage](#) to view the AB Suite Course Catalog and other helpful education and training resources.

To stay up to date on the latest happenings in the ClearPath Forward world, please [subscribe](#) to the ClearPath Forward Connection™ newsletter. For more insights about the ClearPath Forward world, please give [The Power of Innovation – ClearPath Forward Systems in Action](#) a read.

Quick reminder that the next major AB Suite release will be AB Suite 6.1. Naming this release AB Suite 6.1, not AB Suite 6.0, was an internal decision and does not have any impact on our users. Its availability is planned for Q4 2016.

And if you're looking to explore AB Suite on an evaluation basis, please [download AB Suite Express](#) today! This free download include the full AB Suite package – AB Suite Developer and AB Suite for Windows Runtime – as well as a “getting started” course designed to help you begin exploring everything AB Suite has to offer in no time.

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