Major Release: AB Suite 5.0 Is Out!

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

Great news! Agile Business Suite 5.0 has arrived!

The availability of the latest version of the software marks the third major release we’ve rolled out in the last three years: AB Suite 3.0 in November 2012, AB Suite 4.0 in December 2013, and now AB Suite 5.0 in December of 2014.

Once again, this release furthers our commitment to both the Enterprise Application Environment (EAE)/AB Suite user community and the AB Suite program as a whole. How? By offering a wealth of new and updated features, including:

- Introduction of the new Client Framework for AB Suite on Windows (learn more later in this issue)
- Integration with Microsoft® Visual Studio® 2013 and Microsoft Team Foundation Server (TFS) 2013
- TFS Build and TFS Test integration
- 64-bit Microsoft Windows® runtime support
- Qualification of ClearPath® ePortal 6.0 for AB Suite on Windows
- Qualification of the latest Enterprise Database Server for ClearPath MCP (DMSII) features for AB Suite on ClearPath MCP >>

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   We provide a wide array of materials to help you stay up to date on everything that’s happening in the world of EAE and AB Suite.

   The new AB Suite Client Framework gives you the freedom to create cutting-edge user interfaces using your preferred technology.
We’ve also introduced new wizards in this release that will make AB Suite even easier to learn and use than previous versions. And, with features such as the “Find All References” function, we’ve taken additional steps to increase developer productivity, so our customers can quickly deliver new capabilities that help them stay ahead of the competition.

The AB Suite user community once again played a vital role in shaping this release. We would like to thank everyone who offered New Feature Suggestions (NFSs) for AB Suite 5.0. Your ideas and feedback proved incredibly valuable – this release incorporates over 25 NFSs.

**New Tools Let You Think Like a Startup**

Demand for fast, efficient IT responses has never been greater – whether it’s a business service or a business process – especially when you consider all of the eBusiness initiatives launching around the world. Plus, new startup companies are giving well-established organizations a run for their money with their out-of-the-box approaches.

All of these pressures make application modernization more critical than ever before.

AB Suite 5.0 gives you the tools to think and act like a startup. Integration with ClearPath ePortal 6.0 enables you to quickly modernize your existing EAE or AB Suite applications and make a seamless entry into the world of mobility.

And when you want to modernize applications your own way, with your own tools, AB Suite 5.0 offers you that freedom with our new Client Framework implementation. It allows you to use Windows Presentation Foundation (WPF) and Blend, to name a few, to create modern user interfaces for your existing AB Suite applications. If you would like help getting started with the Client Framework, we have consultants standing by to help you select the tools and approach that are right for you.

**Ready to Get Started with AB Suite?**

If you’re an EAE user and have been wondering what AB Suite can do for your business, now is the time to find out. We encourage you to join the many EAE shops that have already made the transition to AB Suite and see the benefits it can deliver every day. And with the help of our best-practice-based migration approach, you can make a quick, low-risk move to AB Suite. Please do not hesitate to talk to our consultants when you are ready to plan your migration project.

I wish everyone great success with AB Suite 5.0. And please, don’t hesitate to let us know your experiences with the software by emailing us at ABSuite@Unisys.com.

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**Field Testing Leads to a Great Release**

The AB Suite 5.0 field test ran from September 15 to October 17, 2014. Participants – which included customers, partners, and Unisys support analysts and technical consultants – focused the majority of their efforts on importing, building models, and testing the runtime.

And key areas of interest included the Client Framework feature, Automated Test Tool (ATT), and the new wizards added into this release.

We offer a hearty “thank you” to everyone who participated in the field test. Your support made AB Suite 5.0 the best AB Suite release ever.
2014 EAE/AB Suite Symposium Recap

By Diane McGonigle, AB Suite Migration Manager, Unisys

The second annual EAE/Agile Business Suite Symposium was held during the 2014 Universe conference in Dallas, Texas, on October 13-15, 2014. Much like the inaugural version of the event, this year’s Symposium was once again dedicated to all things EAE and AB Suite.

We were very fortunate to have presentations from two Unisys customers.

**Helmut Porcher of TIES** gave a presentation on how his company is modernizing end-user interfaces with the help of the new Client Framework feature in AB Suite 5.0. Helmut also discussed the work TIES and the AB Suite engineering team did in early 2014 to help shape the feature content of the Client Framework.

The second presentation was given by **Marijn Wegh, Achmea Program Manager**, and Boris Maltha, Unisys Managing Consultant. Marijn and Boris discussed the reasons why Achmea decided to migrate 30 developers and a very large solution from EAE to AB Suite, highlighted the benefits of the migration, and shared lessons learned that will be of particular interest to any company thinking of making the move to AB Suite.

Members of the Unisys EAE/AB Suite team also covered a number of interesting topics during the event:

- Maarten Schneider gave an update on the overall EAE/AB Suite program
- Grant McCauley offered an overview and demonstration of the key features in AB Suite 5.0
- Andrew Lee took a look at the new AB Suite Client Framework (see this issue’s Engineering Corner article to learn more about it)
- Jim Nichols provided tips for anyone thinking about moving to the new EAE Version Control feature »

**The Symposium Goes Global**

A week after the Symposium ended, we took the show on the road and presented much of the same content to our European users at the EAE/AB Suite Technical Seminar in Amsterdam. It was another successful event and helped us ensure customers around the globe stay up to date on all the great things we’re doing with the EAE/AB Suite program.
We're already hard at work planning next year's event, which is scheduled to run from **November 2-4, 2015**, at the **Renaissance Orlando at SeaWorld**. If you have any suggestions for presentation content or would like to become a presenter yourself, please contact **Diane McGonigle** to get started.

And many, many thanks to our presenters and everyone who attended the Symposium. Your time, energy, and support were instrumental in creating a great event.

*We look forward to seeing you in 2015!*
AB Suite Gives UVMS Customers a Foundation for the Future

By Stewart Fraser, Manager, London Center of Excellence, Unisys

Central to one of the most scalable voicemail platforms on the market today, Unisys Universal Voice Message System (UVMS) boasts a 15-plus year heritage that has culminated in an extremely feature-rich solution that can be supplemented with additional, specialized capabilities as needed. And, it can even be delivered as a managed service, should a Telco provider prefer this model to a traditional implementation.

Licensed to Telco service providers around the globe, the solution provides robust voicemail capabilities to residential and business customers and supports hundreds of thousands to millions of mailboxes per deployment. In total, more than 100 million people worldwide rely on the solution.

As a strategic, mission-critical aspect of our customers’ operations, it is imperative that the solution remain current with industry trends, as well as supportable, extensible, and future-proof. And to this end, numerous organizations have opted to migrate UVMS to Agile Business Suite.

A Seamless Migration to AB Suite

Many of the migrations around the world were carried out by Unisys UK’s London Center of Excellence (LCoE). The LCoE is dedicated to providing modifications – many of which are based on user feedback – to the core solution. So, guiding the AB Suite migration process was a natural extension of the team’s core competencies.

The AB Suite migrations were included as part of complex platform refresh projects. Significantly, the LCoE team has found the AB Suite migration element of the exercise to be quite smooth – a key benefit to Telcos, given the extensive planning and execution required for such projects.

To date, upwards of 90% of the mailboxes in Europe have been migrated to UVMS on AB Suite running on ClearPath MCP based Unisys VSE servers.

This figure stands as a testament to the trust both the LCoE and Telco providers have in AB Suite. Clearly, they feel confident that AB Suite boasts the capabilities required to serve as an effective foundation for such a mission-critical solution.

In Europe alone, UVMS supports:

- 5 million mailboxes in the UK
- 30 million in France
- 8 million in Spain
- 20 million in Germany and the Netherlands
- 3 million in Slovakia

Several million more mailboxes are supported across Africa and the Americas.
In June of 1984, John Le Lievre joined Unisys as a member of the Operations Support team. Though he has worn many hats throughout his tenure, John’s focus has always been on support – mainly for the ClearPath MCP operating environment.

After holding the position in Operations, John provided training services and presales and post-sales support. He later entered Onsite Services Delivery, catering to Unisys customers in Australia. Today, he continues to deliver support and services as part of the Asia-Pacific CSC and is the ClearPath MCP Team Leader in Melbourne, Australia.

In addition to his strong ClearPath, EAE, and AB Suite skill set, John is recognized worldwide as a specialist on Enterprise Database Server for ClearPath MCP and Remote Database (RDB). He uses this combined expertise to support a customer base that spans a wide geographic area, including mainland China, Taiwan, Malaysia, the Philippines, New Zealand, and Australia.

A true people person at heart, John enjoys working with a wide and culturally diverse customer base. As part of the eight-person Asia-Pacific CSC team, each analyst juggles many responsibilities – and John is no exception. In addition to providing core software support for his customers’ mission-critical environments, John also travels to client sites, delivering ClearPath MCP, EAE, and AB Suite training and services.

A Source of Infinite Insight

To help his clients realize the maximum benefit of their EAE, AB Suite, and Enterprise Database Server for ClearPath MCP environments, John dedicates a significant portion of his time and efforts to developing specialized training programs. Personally, he has delivered a variety of training courses and technical workshops, covering topics such as MCP and Enterprise Database Server for MCP performance essentials, batch report performance, and database deadlock analysis focusing on the AB Suite Runtime environment.

With the release of AB Suite, John conducted a demonstration for a major financial services client that runs a mission-critical credit card application. This client suffered from disruptive downtime during scheduled database updates. Throughout the session, John demonstrated the use of ReorgDB, a feature of Enterprise Database Server for ClearPath MCP and AB Suite that enables a near 24x7 production environment. The client was so impressed with the demonstrated features that it was a key reason why they migrated to AB Suite. Now, instead of having to plead with its customers for downtime, database updates can be handled with little to no impact on the production environment.

John’s status as an infinite source of knowledge is further validated through his support work in the area of disaster recovery (DR). He is the author of internationally and widely used documentation that outlines the use of remote database backup for EAE and AB Suite users. The methodology he defined creates a hot, up-to-the-last-transaction DR standby application environment.
Life Outside of Unisys

When John is not fulfilling his duties as a CSC Analyst, he can be found on a boat carrying out a favorite pastime – fishing. And, as a fine wine enthusiast, he enjoys bottles of red of many vintages from his wine collection. But it is his big heart and love for Siberian Huskies that led him and his wife to assume yet another important role – rescuers of senior dogs so they can enjoy the twilight of their lives in comfort. Presently, John and his wife have opened their home to their seventh senior Huskie, Spice.

The Le Livre pack. From left to right: Spice (12-year-old Huskie), Evie (Samoyed puppy), and Callie (13-year-old Samoyed in her second and final home).

Info Center and Calendar

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

• White Paper: Change Analysis Improvements and Best Practices (Updated)

To view these and other resources, simply go to public.support.unisys.com, 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 and Training web site and check out the AB Suite Course Catalog.
Introduction

The evolution of user interfaces (UIs) has reached a point where end users expect a considerable amount from their client applications. In order for client application developers to react to these requirements, they need an environment that integrates with the rich toolsets that are available now, and will be in the future, so they can satisfy the expectations of an increasingly demanding customer base.

Since many Agile Business Suite users are feeling the pressure brought upon by this need, we designed the Agile Business Suite Client Framework to help them develop state-of-the-art UIs using their technology of choice, while retaining an optimum level of integration with the AB Suite application itself. The Client Framework allows you to choose the UI development environment and create a look and feel for your client applications that's right for your needs. You'll get total control over the user experience and ultimately deliver more satisfying results to your end users.

The underlying principle of the Client Framework is to establish a separation of concerns when it comes to multi-tier application development. Increasingly, UI development is undertaken by a specialized design team that focuses on the client application requirements and interacts with a team of back-end system developers, so that the appropriate data is available and displayed in the required format. In this scenario, the AB Suite application implements the business logic and data interface definitions to address the UI requirements. This approach eliminates the need for AB Suite developers to be responsible for UI development. Instead, that part of the process will be left to an external UI development team. As a result, the AB Suite Client Framework enables a separation of concerns when developing large-scale enterprise applications that demand rich user experiences.

System Modeler Integration

With AB Suite 5.0, we are adding the new Client Framework application type, which exposes the Client Framework capabilities for AB Suite on Windows applications.

When you create a new Client Framework application, you will notice a number of differences from the traditional AB Suite application. Most notable is the absence of the AB Suite Graphical Forms Painter that was used to design the UI for an Ispec. For a Client Framework application, the UI design is now done in the client technology of choice, such as Windows Presentation Foundation (WPF) Designer for Visual Studio or Blend for XAML based applications, and Visual Studio Tools for Microsoft Model-View-Controller (MVC) Razor views.
You can add a Presentation Interface node, which defines the attributes to be exchanged between the runtime system and the client application, to an Ispec. Essentially, this defines the data contract between the UI developer and the AB Suite model designer.

The attributes in the Presentation Interface are used to generate the Data Model for an Ispec.

The generated Data Model includes data annotations based on the properties of these attributes, which help describe the Data Model definition to UI developers or external tools that can interpret them.

An AB Suite folder now contains new properties specific to the Client Framework. It allows you to choose the client technology you plan to work with, such as WPF, Windows Communication Foundation (WCF), Custom .NET, etc., and groups a collection of Ispecs for use with that technology. Different artifacts will be generated based on the specified client technology.

When a client technology is selected, and Ispecs are added to that folder, System Modeler will automatically execute a background task to generate the required technology projects in the same solution as the AB Suite application.

As more Ispecs are added, modified, or deleted, System Modeler will keep the generated projects in sync with the technology folder contents and the Presentation Interface definitions.

Having everything in one solution provides an integrated approach to developing a Client Framework application, including the UI components. In this way, they can be placed under Source Control, backed up, and restored as a single entity.

When developing client applications, you may find many instances where you need to display a “list of items,” either in a grid, a list view, or a listbox. We've acknowledged this requirement with the Client Framework and introduced a new Framework item in AB Suite called GLB.List. It allows you to create a template class that can be used as an item in a list. You can then add items to the list in LDL+ logic and use the new GLB.ClientManager Framework class to send it as either a static or dynamic list. This new item enhances and simplifies the way you currently handle this frequently used aspect of client development.

In addition, CopyIspecs will have their CopyFrom fields generated as a collection that can be treated as a list, making it easy to bind these items to a DataGrid, for example. >>
The New Access Layer API

At the core of the Client Framework is the ubiquitous Data Model concept. Once we have Ispecs exposed as .NET Data Models, they can be utilized effortlessly in many different development environments. For instance, they can be:

- Serialized to JSON or XML
- Data-bound to XAML Views
- Exposed in WCF contracts
- Instantiated and populated with user data
- Exchanged in MVC Views using MVC Model binding
- Transformed to JSON in Ajax calls using Web API technology

In order to take advantage of the Data Model concept, we introduced a new Access Layer API to the AB Suite Runtime system that manages the transfer of data using Data Models. Delivering data from a browser can be as easy as accepting a Data Model from an MVC request and transmitting it to the runtime system using the Access Layer API Transmit() method. There is nothing more to be done, because the Access Layer API deals in the Data Models generated by System Modeler.

As the name suggests, the Access Layer API is an API to the AB Suite Runtime system. It has been designed with the .NET developer in mind, and exposes classes, interfaces, methods, properties, and events in a style common to a .NET based interface. Intellisense is provided with the Access Layer API in Visual Studio and a compiled help file is also available for use as an online reference.

There are many things to discover about the Access Layer API. Here are some additional points that may be of interest:

- Some key methods are provided in async flavors to allow the client application thread to continue processing while waiting for a reply to the async method call.

- Data is exchanged through Data Model definitions. AB Suite attribute types, such as Date, Boolean, Numeric, etc., are converted to their equivalent .NET types. The client application does not need to perform any conversions because it is already done by the Access Layer API.

- The Access Layer API connects directly to the Runtime system’s COM interface. This architecture eliminates any overhead or proprietary protocols that would otherwise be imposed by intermediate services like the Remote Access Server.

The WPF Client

Windows Presentation Foundation is currently Microsoft’s primary desktop development environment for Windows. With that in mind, AB Suite delivers a fully featured client application based on WPF/XAML technology called the WPF Client. When you create a WPF technology folder, it will automatically generate projects containing Data Models, Data View Models, Data Sources, and empty Views to kick-start desktop development.  

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You can design your Views in Visual Studio using the WPF Designer, or Microsoft Blend if you prefer that environment. With a relatively small amount of work, you can have a desktop application up and running simply by designing the Views and establishing the bindings between the Data View Model and the controls on the View. The rest of the infrastructure (e.g., to perform transactions, run reports, or open/close sessions) is already in place. Example Views from a redesigned AB Suite Sample system are shown below.

While the WPF Client infrastructure makes it easy to develop client applications like the screens shown, it is also extensible enough to allow you to create something that looks a bit different than the standard WPF Client. You can create a new WPF Client project from the template that we provide and add your own customizations to the WPF Client Container application itself.

**MVC Scaffolding**

Microsoft MVC and Web API technologies for Internet application development have become very popular in the industry. And, there are positive signs that these technologies will continue to evolve and be part of Microsoft’s future direction. To help you integrate your AB Suite applications with these technologies, the Client Framework includes the MVC Scaffolder, a Visual Studio extension that is available for use with MVC projects. The AB Suite MVC Scaffolder is specific to AB Suite applications and will generate Views, Controllers, and other infrastructure files in an MVC project, giving you a starting point for developing MVC applications.

Some example views for the AB Suite Sample system running as an MVC application are shown below. The UI shown was designed as a set of HTML pages with CSS and JavaScript, by a team that specializes in UI design. These designs were then integrated with the MVC application that was scaffolded using the AB Suite MVC Scaffolder. >>

Note the theming that can be applied with CSS styling techniques.
We can also apply responsive design principles using the Bootstrap framework to allow a client application to adjust its layout based on different form factors. Notice also how the menu navigation automatically changes to suit the smaller device type.

The MVC Scaffolder can also expose a Web API interface to your AB Suite application. This allows Internet-based applications to perform RESTful service calls to your system over HTTP. And, it’s especially useful for creating mobile or single-page applications that make asynchronous Ajax requests to a web site. Information can be retrieved and inserted into the page without the overhead of a full page refresh. A published Web API interface is also ideal when dealing with heterogenous environments where a variety of different client applications need to make calls into your system. If you are interested in exploring the benefits the Internet of Things can provide your business, including a Web API interface is a vital ingredient.

**WCF Gateway**

The Client Framework integrates a WCF Gateway with the AB Suite for Windows Runtime. This capability is for client applications that are not able to interoperate with direct COM/DCOM interfaces, including Microsoft Silverlight® or Windows Store apps. The WCF Gateway exposes a service that exchanges the generated Data Models. On the client side, the Remote Access Layer components implement the same Access Layer interface to communicate with the Gateway instead of COM/DCOM. This allows the client application developer to work against the same interface regardless of which connectivity option is being used.

For service-based operations, the WCF Gateway can also host a custom service library generated by the “WCF Library” option in the client technology folder selections. This option creates a WCF Library project that can be configured and hosted by the WCF Gateway service, and exposes the Data Models generated for the Ispecs in the client technology folder.

In the Runtime environment, the WCF Gateway runs as a service. But in the AB Suite development environment, a Gateway Server Console is made available for testing purposes.

The WCF gateway also exposes a File Repository Service that allows client applications to download files and images, for example, as required during the course of their processing.

**Migration to the Client Framework**

While the Client Framework is ideal for new client application development, we understand that you likely have made investments in existing client technologies with current AB Suite applications. Fortunately, we have a mechanism in place that allows you to convert existing AB Suite models to Client Framework models. You simply create a new Client Framework application from an existing...
model and let the conversion process take effect. You’ll be left with a new Client Framework model to use for the rest of your development project.

In the case of WPF Client technology, the conversion process will also migrate the existing forms across to WPF/XAML based views. The resulting forms can be used immediately in the WPF Client application. However, there are some minor adjustments that will need to be made, mainly in the area of CopyFrom items, which are now sent as a collection and bound to a DataGrid, instead of individual fields.

For MVC Clients, the AB Suite MVC Scaffolder can also make use of the metadata that the conversion process generates. In this case, the scaffolding template will create a set of controls that were previously defined in the AB Suite forms. If you had a button for an attribute, it will create a button control, and so on. However, it does leave the styling and layout for you to adapt using CSS styling and layout systems, like Bootstrap. Moving to the Client Framework will also require you to decide on the tools and methodologies you will use for the ongoing development of your client applications. In this case, there will be a certain amount of UI redesign to be done after the scaffolding is complete.

Summary

In summary, the Client Framework paves the way for a new era in client application development with AB Suite. It lifts the constraints of the existing paradigm and promotes new ways of approaching both front- and back-end development through a separation of concerns. The UI team and database/transaction processing team can each do what they do best, resulting in the best possible outcome. For customers that have the skills to develop state-of-the-art client applications – or wish to outsource that work – the Client Framework delivers standard interfaces based on the .NET Framework developers already understand and know how to use. We hope that as our customers start using the Client Framework, it will foster an ecosystem of AB Suite developers, where ideas can be shared and we can take the next steps forward together.