UNISYS | Securing Your Tomorrow™

Developing Agility

The Quarterly Newsletter for Unisys EAE and Agile Business Suite Clients

Contents

ClearPath Channel
Over 220 Videos Online! You Tube

New Major Release: AB Suite 6.1

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

Exciting news: the much-awaited release of Agile Business Suite (AB Suite®) 6.1 has arrived!

This new release is all about enriching the development experience through greater ease of use and increased flexibility. To that end, it offers new wizards that guide the creation of outbound Web Services in AB Suite on ClearPath® MCP environments. It boasts new DMSII features that maximize data availability while providing added flexibility. And new XML and DevOps capabilities in the AB Suite on Microsoft® Windows® runtime help you greatly increase business agility.

Let's take a look at some key new capabilities included in this major release.

Enabling Ease of Use with Intellisense

Enhanced in AB Suite 6.1, AB Suite Developer now includes many of the powerful features included in the Microsoft Visual Studio® Editor. With the help of Intellisense capabilities, such as live assistance and dynamic validation, you'll be able to develop with confidence and minimize errors. Likewise, improved auto completion features increase the speed of your development process.

Understanding Your Code Base's "Big Picture"

In AB Suite 6.1, features like code definition and peek definition give your developers the ability to maintain code development context while exploring their code base. Peek definition helps them view and edit code without switching away from the code they're currently writing. **>>**

Developing Agility

They can move freely around the document in different ways, such as Navigate Backward to previous locations and Navigate Forward to recent locations. They can also use an enhanced scroll bar to get a bird's-eye view of their code.

Managing Your Application's Lifecycle

In addition to existing integration with Microsoft Team Foundation Server (TFS) 2012 and 2013, AB Suite 6.1 is now integrated with Microsoft TFS 2015. With the help of this new integration, you'll become better able to manage your application's lifecycle, while reducing risks and improving efficiencies.

Driving Interoperability

When you're operating heterogeneous, distributed applications, using Web Services to integrate and enable dynamic interaction among these applications has the potential to streamline and automate many critical business processes. The MCP WebAppSupport feature supports this goal by making it possible for applications to handle outbound calls to Web Services. In AB Suite 6.1, you can seamlessly take advantage of MCP WebAppSupport libraries with the help of a new wizard that guides you through the process of creating an AB Suite class using an easy-to-modify example.

Increasing Availability and Flexibility

When you're able to maximize application and data availability, it leaves you well positioned to increase productivity, boost customer satisfaction, and improve revenues. AB Suite 6.1 features new DMSII capabilities that help you work toward these goals by reducing operational downtime and adding more flexibility to large systems. For example, the new DMSII Migrate Database (MIGRATEDB) feature allows you to add or delete DISJOINT data sets without shutting down the database.

And to help you overcome limitations on the number of database structures that can be reorganized, AB Suite 6.1 on MCP now supports automatic Staged Reorganizations. These allow an almost unlimited number of user and

"fixup" structure changes in a single application deployment. To learn more about these and other database-focused features included in AB Suite 6.1, be sure to check out the DMSII article later in this issue.

Enhancing Business Agility

It can be difficult for IT to tie together the data generated by applications from different vendors and different domains. In AB Suite 6.1, we're addressing this challenge with the XML Framework, a new model type that supports XML processing in the AB Suite on Windows runtime.

With it, you can avoid the need to use third-party tools for XML processing in AB Suite. When XML messages are submitted to an AB Suite on Windows system, the XML Framework will parse, interpret, and process them, then return the appropriate response, including an output XML message if necessary.

Like XML, DevOps can help your organization become more responsive and agile, while equipping you to bring higher-quality releases to market faster. AB Suite 6.1 extends these concepts by giving AB Suite on Windows users new features that enhance build automation across different environments. With them, you can set the location information for different environments without rebuilding the Model. And, you can automate the build process from one Model to different environments, like test, acceptance, and production, by leveraging the Team Foundation Build function.

We Couldn't Have Done it Without You

A sincere thank you to all who participated in the AB Suite 6.1 beta test. The release is better and richer because of your time and input.

We hope you're as excited as we are about this release, and are eager to use its new features and realize the benefits it promises to deliver. We encourage all users – beta testers and otherwise – to share their experiences with AB Suite 6.1 by emailing us at ABSuite@unisys.com. We'd love to hear from you!

My Experiences Beta Testing AB Suite 6.1

By Alan Hood, Founder, Hood Software Solutions

After many years working directly with Agile Business Suite, as well as many related Unisys products and solutions, I jumped at the opportunity to participate in the beta testing for AB Suite 6.1.

My involvement with the beta test began with the Phase 2 testing, which ran from August to September of 2016. The test included about 20 participants, all of whom were tasked with putting the solution through its paces in a realistic environment.

I was most interested in the enhancements to AB Suite Developer, which include a new Visual Studio Logic Editor and more complete DevOps capabilities enabled by integration with Team Foundation Build.

Documentation

Documentation provided during the beta test included the **AB Suite 6.1 Beta Release Notes** and the **AB Suite Qualification Matrix**, which was updated for release 6.1. There were also several new **How To** documents, ranging from configuring and using Team Foundation Sever for DevOps, invoking Web Services in the MCP environment, enabling and processing XML in a model, and implementing new DMSII feature extensions.

Initial Test Activities

I installed AB Suite on a virtual machine running Microsoft Windows 2012, SQL Server® 2014, and Visual Studio 2015. I had been using this VM with AB Suite 4.0, so the beta test provided a good opportunity to try out upgrading from an existing AB Suite installation to the new version. Minimal changes were required. In this case, only Visual Studio was updated.

After installing release 6.1, the first thing I did was create a new project using the Sample model from the release. I was able to explore the model in Developer, and Build and run it with the Winform client.

Next, I created a project using my own test and training model, MyMDB, which demonstrates and exercises more of the Modeling and Object-Oriented features of AB Suite. I was able to Build and run it with the Winform client and the ASP .NET Web Form interface with no problems.

Ongoing Test Activities

I began treating AB Suite 6.1 as my "go to" version of AB Suite in any of my daily activities where a specific release of the product is not mandated. I loaded a large model – around 300 Ispecs and 200 Reports – and generated the ASP .NET Web Form client.

Then I migrated and loaded a larger EAE model with about 400 Ispecs and over 500 Reports.

After spending time with the Beta 2 features, I installed the Beta 3 version and worked with it on a regular basis, paying special attention to the new TFS Build and XML interface capabilities. **>>**

Final Thoughts

As with every new AB Suite release, version 6.1 clearly incorporates many key features clients requested.

From my perspective, the overall quality of AB Suite 6.1 is good. I only encountered a few minor problems with installation, but Unisys engineering team was quick to respond with the necessary workarounds.

The Beta program itself was well run, as well. I would like to offer my thanks to Leanne Bates and the rest of the engineering team. "Good on ya!" as the Aussies say.

Alan Hood worked with AB Suite and its predecessor products for many years as an engineer, architect, program manager, and technical consultant. In 2015 he formed Hood Software Solutions to help people solve their business problems with the aid of technology. He is ready and willing to help you with all aspects of software development, including requirements and architecture, training and mentoring, web, GUI, and mobile modernization, refactoring, and Agile methodology. You can contact Alan on his web site: HoodSoftwareSolutions.com.

EAE to AB Suite Upgrade: Where to Next?

Choosing to upgrade from EAE to Agile Business Suite opens you up to a whole new world of opportunities and possibilities.

And once you've made the move, we'll work closely with you to make sure you benefit from all the software has to offer.

You'll be able to realize these benefits by leveraging post-upgrade services that focus on helping you:

- Deliver a modern user experience, mobile-enable your AB Suite applications, or integrate them into a SOA landscape or other environments
- Stay current on the latest AB Suite release and implement powerful new capabilities that add more value to your applications
- Address skill gaps, so you have more time to focus on strategic matters

Application Evolution for Today – and Tomorrow

Delivering IT services across traditional and mobile channels is critical to gaining an edge in today's dynamic world. With our help, you'll be able to adapt and evolve your applications to fit new and changing environments.

With the **SOA and Application Interface Enrichment Services**, you'll be able to integrate your ClearPath system with those residing in distributed environments, as well as refresh and extend your existing AB Suite applications to new ends.

This way, you can take steps toward full SOA engagement, open up your applications via Web Services, or provide new end-user interfaces.

We'll work with you to combine the **ClearPath Forward ePortal for MCP with AB Suite** in a manner that helps you modernize your applications for access across desktop PCs, tablets, and smartphones. You'll learn how to use ePortal Developer to modernize your application's UI. Or, you can start with an ePortal proof-of-concept engagement to help justify the effort and demonstrate rapidly visible results. At the same time, we'll help you upload the specification to our CloudBuild portal, where we'll work with you to create native apps for the most common mobile operating systems, including Apple® iOS and Android™.

We'll also help you **integrate your AB Suite applications with our Enterprise Output Manager software** to automate routine print and output-management activities.

Core Features, Maximum Value

Sometimes, doing more with what's already in place can make a world of difference. That's why we offer several services aimed at helping you maximize the capabilities inherent in AB Suite, so you can translate them into discernable business value. >>

With the help of our **Version Control Workshop and Version Control Implementation Services**, you'll be able to recognize – and make use of – the many possibilities AB Suite and Microsoft Team Foundation Server offer in the area of application lifecycle management. We'll also help you fine tune your processes and mentor and assist your staff during the TFS implementation. These services can serve as an appropriate starting point on the journey towards DevOps.

When you want the freedom to design and create UIs on your terms, look no further than the Agile Business Suite Client Framework. It brings a new perspective to classic AB Suite applications by opening them up to modern, front-end application development practices without losing the strength of AB Suite's model-based development environment. When you use the **Client Framework Implementation Service**, you'll have the resources you need to effectively put the feature in place – and learn how you can use it to develop modern front-end applications with AB Suite.

And with our **AB Suite education services**, you'll have access to standard courses and customized training that help you optimize your investment in all things AB Suite.

Driving Business Agility Through Insight

Applications are the lifeline of your organization. They're the connective tissue that links together your stakeholders, internal and external end users, business partners, and more, enabling everyone to have meaningful interactions with the business. Because of this, application performance management is a truly critical concern.

When you use our expert **Managed Services**, you'll have access to a worldwide network of cost-effective delivery centers and global service management platform that combine to help you alleviate the strain associated with managing your AB Suite applications and related infrastructure.

And with the ability to draw from a deep pool of proven experts on an as-needed basis, our **Staff Augmentation Services** give you the flexibility and scalability required to keep pace with changing business goals and fluctuating demand for specific skill sets and resource levels. As a result, you'll create a continuity of skills that fills in any gaps you're dealing with today, while helping you stay focused on meeting your shifting business goals.

To learn more about these and other AB Suite specific services, please contact your Unisys sales representative. And for additional information about our portfolio of service offerings, give our brochure *and* eBook *a read today.*

Another Great Year at UNITE

The 2016 conference for UNITE, the International Unisys User Association, was held from Oct 10th through 12th in Cleveland, Ohio. As with every UNITE conference, it was a great opportunity to learn about all the recent happenings in the Agile Business Suite and ClearPath Forward™ worlds, reconnect with old friends, and meet some new faces.

The EAE and AB Suite track had a busy schedule yet again this year. Thangathen Ponnusamy delivered the "AB Suite Product Update" session, which featured an overview of several important new enhancements included in AB Suite 6.1. The "My Experiences Beta Testing AB Suite 6.1" and "I Didn't Know You Could do THAT with AB Suite" sessions were delivered by Alan Hood of Hood Software Solutions.

"I always like the UNITE conference because I learn new and unexpected things. Unisys employees are everywhere and are eager to listen and share any information they have about anything. They are readily available not only at the Unisys booth but also at the meal tables and in the sessions. I learn something new every time. They make me think outside my normal box. It is also interesting to talk with people from different industries and different platforms. I almost always find we have similar challenges and can share ideas. It would be even better if more customers would attend for an even bigger variety of ideas. It is definitely worth your investment."

— Ina Boeke, AVP, United Fire Group

On the final day, we concluded with the "EAE/AB Suite Birds of a Feather" session, a discussion that covered such diverse topics as clients' favorite features, viewpoints from the EAE community, and bringing AB Suite into university curriculum.

It was another great year at UNITE. We thank the UNITE members who helped organize and run the event, the session presenters, and everyone who attended the conference.

Engineering Corner: New DMSII Enhancements in AB Suite 6.1

By Howard Bell, Architect – EAE/AB Suite MCP Runtime and Debugger, Unisys

Agile Business Suite 6.1 includes a number of updates and enhancements to the DMSII database. Among them are new capabilities that help to minimize database reorganizations, add flexibility and scalability to the reorganization process, and increase the database's overall scalability and flexibility.

Here's how...

Minimizing Database Reorganizations

The DMSII **MIGRATEDB** feature allows you to add or delete DISJOINT data sets, as well as their spanning sets and subsets, without stopping the database for a reorganization. However, these additions or deletions must be the only changes to the database structures – if you add sets or subsets to an existing data set, the database must be reorganized.

By default, AB Suite 6.1 on MCP will automatically attempt to use MIGRATEDB for database changes whenever possible, with the following structure restrictions:

- Incompatible with RDB enabled
- Incompatible if the added or deleted data sets contain a link item or structure of a link item
- Incompatible for a build where DMSII XL is enabled for the first time

The deployment process uses the DMSII DASDL compiler output to determine the validity of the DMSII MIGRATEDB option. If the DASDL says it is not appropriate, the deployment will continue without MIGRATEDB.

A Build Preview output summary will indicate whether MIGRATEDB will be used for the deployment. If the deployment proceeds with MIGRATEDB, two additional status messages will appear:

- "MIGRATEDB will be used to apply these changes"
- "MIGRATEDB in progress Job = <job number>"

Though MIGRATEDB is enabled by default, you may disable it on the Application Builder server using the command "MIGRATEDB+/-."

Database Reorganization Scalability and Flexibility

A single DMSII Reorganization can touch a maximum of 300 structures, which includes any actual structure changes, as well as any implicitly included "fixups," such as the reorganization of associated sets/subsets in a changed data set.

For a large AB Suite application the limits of a single DMSII reorganization may be an issue when a change is made to an attribute and many persistent attributes inherit the change. Fortunately, AB Suite 6.1 on MCP provides automatic **Staged Reorganizations**, which support an almost unlimited number of user and "fixup" structure changes in a single deployment. **>>**

The need for a Staged Reorganization is determined during the deployment process. If required, the process determines the number of stages needed to apply all changes and allocates the changes to those stages – while staying within the 290 structure changes per stage limit. The multiple reorganizations are managed by the deployment process. The application software is installed when the last reorganization completes. Note that a Build Preview will detail the scope and stages as appropriate.

If the Staged Reorganization feature is not desirable for a particular application, you can disable it from the Application Builder via the "WAITIFSTAGE+/-" command.

If a Staged Reorganization is required for the deployment, and the Reorganization Type selected is neither "Offline" nor "Offline No Post Dump" – or the "WAITIFSTAGE" command is enabled – then you'll be prompted to confirm the Staged Reorganization.

It's important to understand that the Staged Reorganization process cannot handle database changes that are simultaneously applied to most or all structures. For example, setting the segment configuration property Extended Edition to "True" will apply the "DMSII EXTENDED" option to all structures. This may result in DMSII implicitly reorganizing every data set and set/subset. If you've globally enabled the "EXTENDED" option, and the number of structures impacted by the change exceeds the Staged Reorganization threshold, the Build Preview summary will include

an XE warning. Should you continue with an actual deployment, the same XE warning will be shown in the client log.

For more details, please refer to the Agile Business Suite Runtime for ClearPath MCP Administration Guide.

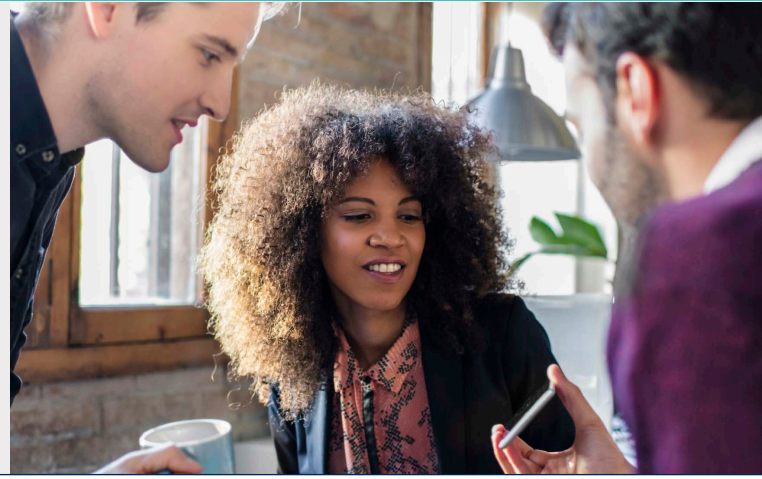## General Database Scalability and Flexibility Improvements

Aside from the Staged Reorganization feature, AB Suite 6.1 includes additional enhancements aimed at improving DMSII scalability and flexibility.

For instance:

- You can now specify a value up to 545,755,813,887 for the population of an Ispec or vanilla class, though there are some restrictions:
  - The population of a Direct data set is limited to 268,435,455
  - Data sets with populations exceeding 268,435,455 must be sectioned
  - Sets and subsets whose populations exceed 268,435,455 must be sectioned
- Overlaygoal may now be specified to 8 decimal places
- The ResidentLimit, DumpStamp, and AddressCheck properties may now be specified as "<default>," which means they will assume the DMSII default values

Please email us at ABSuite@unisys.com if you have any questions about these new capabilities or need help incorporating them into your environment.

New Executive Brief Shows You how to Capitalize on Change, Instead of Reacting to It

Applications rule the world.

They're the game changers companies bank on to disrupt established business models and gain a competitive foothold in a crowded, dynamic marketplace.
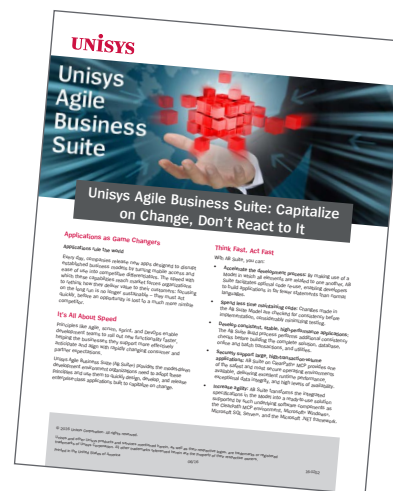
The speed with which these applications reach market means you have to rethink the ways you go about connecting with and delivering value to your customers: years-long product roadmaps won't suffice – you have to act quickly, before a nimble upstart swoops in and takes an opportunity right out from under you.

Speed Is the Name of the Game

Your ability to move fast makes all the difference in this world.

And in our new executive brief, Unisys Agile Business Suite: Capitalize on Change, Don't React to It, we're illustrating how the model-driven development environment in AB Suite can help you adopt principles like Agile, scrum, sprint, and DevOps, and use them to quickly design, develop, and release enterprise-class applications built to capitalize on change.

Eager to learn more? Give the executive brief a read today!

Info Center

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

- **How To:** Fix Report Member's Mismatched Sequence (**NEW**)
- **How To:** Use DataReader in Windows Runtime (**Updated**)
- **How To:** Use Registry Keys with Windows Runtime (**Updated**)
- **How To:** Clone an AB Suite Model Database (**Updated**)

Additionally, the "Software Qualification and Support Matrix" documents for Agile Business 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 great educational resources 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 all things ClearPath Forward, please give The Power of Innovation – ClearPath Forward Systems in Action a read.

And to learn about the all-new, completely refreshed ClearPath Forward Services portfolio, please download our brochure and eBook today.

If you're looking to explore AB Suite on an evaluation basis, please download AB Suite Express today! This free download includes 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.