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Agile Business Suite

Runtime for OS 2200 Operating System Software Release Announcement

Release 9.0

Contents

Section 1
Product Overview

Delivering features and functionality that increase the productivity and efficiency of the developers, Agile Business Suite (AB Suite®) enables low code development, supports agile development strategies, and extracts more value out of IT investments. AB Suite helps in delivering mission critical business applications. AB Suite software enables enterprises to deliver superior solutions in today's demanding time frame. Such systems require scalability, reliability, and manageability unseen in less capable systems.

Over the course of more than twenty years, Unisys has demonstrated its superiority in building complete large-scale, reliable systems. AB Suite is the next generation of development tools from Unisys. It incorporates new component-based concepts that make it an ideal tool for building composite applications.

What does AB Suite Include?

Agile Business Suite includes:

- AB Suite Developer

- AB Suite Client Tools

- AB Suite Runtime for the ClearPath® OS 2200 Operating System

- AB Suite Runtime for the ClearPath® MCP Operating System

- AB Suite Runtime for the Windows® Operating System

Developer

Targeted for both new and existing AB Suite developers, AB Suite Developer requires minimal orientation for people familiar with Visual Studio.

After your model is upgraded, you can take advantage of significant opportunities to further enhance your application, including UML application modeling, and OO concepts that can improve the maintainability of your application. The OO concepts and its high developer's productivity makes AB Suite Developer an ideal tool for C# developers to take the next step towards developing large enterprise mission critical applications for ClearPath® MCP environment, ClearPath® OS 2200 environment, and Windows® Runtime.

Building An Application

Once your application model is developed using AB Suite Developer, you can build and deploy it to a runtime server using the Builder capability.

Builder produces a fully running system on a server running the AB Suite Runtime from the Developer database repository, including client, application and database layers. For the 9.0 release, systems can be generated for the ClearPath® OS 2200 Operating System, ClearPath® MCP Operating System, and the .NET framework on Windows.

Once built, subject to user permissions on the runtime server, applications can be deployed, installed and executed.

AB Suite Client Tools

Client Tools is a suite of software tools used to support Web services or provide a wide choice of end-user interfaces to AB Suite applications.

The suite of tools includes:

- Component Enabler

  Provides access to systems from a variety of application types and interfaces:

  - Java applications

  - Microsoft .NET Framework applications

  - Component Object Model (COM) interfaces

  - Scripting languages

  - Active Server Page (ASP) Generators

    Used to generate Active Server Page forms, based on the Graphical User Interface (GUI) forms created in Developer. The ASP Forms are deployed to an IIS Server and offer a Browser Client Interface to the AB Suite application.

- ASP.NET Web Form Generator

  Used to generate ASP.NET Web Forms which supersede the traditional Active Server Pages, and run in the Microsoft .NET Framework. The ASP.Net Web Forms are deployed to an IIS Server and also provide a Browser Client interface for the AB Suite application.

  The generated ASP.NET Web Form client applications include support for AJAX (Asynchronous JavaScript and XML), which delivers an enhanced user experience by eliminating the typical Browser refresh between transactions.

- ASP.NET Web Service Generator

  The ASP.NET Web Service Generator generates the interface to allow external applications to invoke Ispecs as Web Services, using XML messages over an HTTP connection. The ASP.NET Web Services are deployed to an IIS Web Server.

- Client Generators for Microsoft Visual Basic .NET

This generator is used to generate Visual Basic .NET client applications based on the Graphical User Interface (GUI) forms created in Developer.

The Visual Basic .NET client application provides a standalone .NET based Windows Form interface to the AB Suite runtime application, based on the Microsoft .NET Windows Forms technology.

- ClearPath ePortal Generator

  The ClearPath ePortal generator facilitates the integration of AB Suite applications with ClearPath ePortal. The generated Ispec XML definition files from the AB Suite model are imported into a ClearPath ePortal solution. Using the ClearPath ePortal Developer plug-in to Microsoft Visual Studio allows the capture of application interface definitions which are used to create Web browser applications, mobile applications, or Web services.

  ClearPath ePortal supports different types of Presentation projects including ASP.NET Web Forms, ASP.NET Web Services, WCF Services, Restful Services and Mobile presentations.

- Generator Customization Kit

  This optional product is used to change the Generator source code to produce a customized generator. For the 9.0 release of AB Suite, users will be able to modify the ASP Generator, the ASP.NET Generator, the ASP.NET Web Services Generator and the Visual Basic.NET Generator.

- Presentation Client

  Java based Component Enabler runtime client application that can be used to display the Graphical User Interface (GUI) forms created in Developer either on a desktop or in a browser.

- Business Integrator

  In conjunction with the Web Services Generator, allows you to extend existing AB Suite applications or build new applications that integrate with non-AB Suite systems, providing support for business process integration.

AB Suite Runtime

AB Suite enables optimum, flexible, and rapid development of runtime solutions by supporting deployment of both its own components and those developed with other tools, together with the capability of multiple platform deployment.

In this release of AB Suite, runtime is targeted at the ClearPath® OS 2200 operating system, the ClearPath® MCP operating system and the Microsoft® Windows environment using the .NET Framework.

Runtime for the ClearPath OS 2200 Operating System

AB Suite Runtime for OS 2200 consists of the following components:

- Runtime environment – provides a runtime environment to deploy AB Suite applications.

- Relational Database Server (RDMS) – used as the database management system. AB Suite uses features of the standard RDMS product with a custom interface for data access called LINC Fastpath.

- Runtime Control and management utility – consists of the following utility:

  LINC Runtime Utility (LRU) – used to configure the deployed applications as well as various runtime maintenance activities.

Section 2
Hardware and Software Requirements

Hardware Requirements

This section describes the recommended hardware requirements for running AB Suite Runtime for OS 2200. The size estimates are exclusive of any other existing software.

Requirement	Details
Host	CP-OS2200-18.0 or CP-OS2200-19.0 or CP-OS2200-20.0 on Dorado and SAIL-based systems. CP-OS2200-18.0 or CP-OS2200-19.0 or CP-OS2200-20.0 on ClearPath OS2200 Software Series.
Memory	Nine to eleven million words of memory with three to four million words reserved for TIP memory. ***Notes:*** • *TIP memory is dynamic and does not need to be configured.* • *These memory requirements do not allow for other external Systems or other development activity.*
Disk storage	Minimum of 3,000 tracks. Minimum of 10,000 tracks, if you are using ROC.
Terminals	Following table lists the supported terminals.
Other peripherals	Line printer and tape drive.

Terminals Supported

This release supports the following terminal types:

UTS 20	UTS 20L	UTS 20R

UTS 30	UTS 40	UTS 60
UTS 60I	SVT 1120	SVT 1121
LT300	DS7	IBM 3270 group of terminals
SNA3270 logical terminals	PCs with UTS terminal emulation software	

Note: *AB Suite supports the LT300 terminal operating in SVT1121-compatible mode. The LT300 is an internationalized terminal with multiple character set capabilities that supports many of the ISO 8859 8-bit character sets.*

The LT300 terminal type is recognized by the :STN colon command and is a valid value for the GLB.STYLE System Data Item.

CMS and MCB recognize the LT300 as a supported terminal type and identify the Coded Character Set (CCS) for each message from LT300. The CCS is a one-to-one mapping of characters in a character set to their internal binary representation. AB Suite stores the CCS identifier (CCS ID) for the input message in the GLB.CCS System Data Item.

Software Requirements

This section describes the mandatory and optional OS 2200 based System software, release CP OS 2200 18.0 or later. You should install this software as your first pre-installation task.

Mandatory System Software

Following is a list of mandatory system software:

- EXEC

  AB Suite supports MHTIP and PAEXEC shared or partitioned applications (and local applications).

- TIP Utilities

- CPCOMM

- UDS control (UDSC)

- UREP and RDMS

  An OS 2200 based System requires only the UREP and RDMS sub products. These are provided under UDS, but also operate with the full UREP and RDMS products. (Due to the use of FastPath, the RDMS STATISTICS option is not supported.)

- IRU

- MCB

- SOLAR

- ACOB

–   You must install the full ACOB Compiler and the C$DML ACOB Common Bank.

–   The ACOB compiler must be installed as non-flagging.

–   The Field data DML Common Banked library must not be used.

    If you require the Field data DML Common Banked library for existing external Systems, you must install a second, alternative ACOB Compiler. Refer to the *ASCII COBOL Installation Guide* for information on installing alternative Compilers.

Caution

Unless the ASCII COBOL compiler has been licensed, no other use for this compiler is authorized. In this context, other use includes compilation or execution of user-written externally generated programs.

- UCOB
- MAP
- PCIOS
- SORT
- LINK
- LSS
- URTS
- Extended Language Message System (ELMS)
- General Syntax Analyzer (GSA)
- COMUS

Optional System Software

The following table lists the optional system software and the corresponding reason for installing the software:

System Software	Details
Business Information Server	Install if you use a Business Information Server interface. You will also have to install MRI for Business Information Server access to OS 2200 Databases *and* or *or* IPFSQL.
MRI	Install if you use a Business Information Server interface.
IPFSQL	Install if you use an NOF interface.

System Software	Details
DDP-PPC	Install if you use HUB. DDP-PPC is an optional product used with external and interhost Automatic Entries that use the HUB mechanism.
PADS	Install if you use UCS applications (recommended).
OLTP-TM2200	Install if you use OLTP.
OLTP-2PC	Install if you use OLTP 2PC.
OSI-TP	Install if you use OLTP multi-host capability.
UC	Install if you use OLTP UCS server systems.
Relational Database Fast Load	Install if you use the off line utility for database reorganization or Fast Load Reports.

Requirements for the Runtime Configuration Process

When you start to configure Runtime, you have to supply replies to requests made by the configuration process for which you need the following:

- Release tape
- COMUS database

  You have to create a COMUS database if you are making changes to the default configuration.

- Configuration parameters

You can accept most of the default parameters for the configuration, especially if you are a new site. However, if you have established naming conventions for jobs and files and numbering systems for your BDIs you have to change the parameters.

Requirements for Runtime

To enable the use of commands to control the Background Run and HUB Background Run, the user ID for each background run must have SSCONSOLE privilege.

You must have an HVTIP library to hold your Runtime. This can be a single library or a shared library.

Requirements for ROC

To install ROC you require the following:

- Installed Runtime
- Runtime tape
- Names used in the Runtime configuration, such as

– System name for your ROC System

– Database name for your ROC System

- VALTAB entry for ROC containing the following information:

  – ROC Spooler transaction ID

  – TIP transaction number

  – Application group number

  – QPRIORITY node with a QMAX of zero for the ROC Spooler transaction ID

You might want to use Freespace files for ROC output that can give performance benefits in a high-volume printing environment. This involves an Exec configuration parameter creating a TIP Freespace control file (FS$SYS) for ROC and the use of a TEMP$SGS parameter for ROC.

Refer to the *Agile Business Suite Installation and Configuration Guide* for more information.

Other Software Considerations

This section describes the other software considerations that must be considered before installing the Runtime for OS 2200.

Considerations for Intersystem Communications

The external Automatic Entry (HUB) facility provides an easy-to-use method for communication between systems that can be on the same host or on different hosts.

The following table describes the software requirements for HUBs depending on the facilities that you want to use:

Facility Used	Active HUB Background Run	HUB$SGS Element with LOCALHOST and Remote Host SGSs	Configured HUB for Runtime
No external Automatic Entries and no ROC	No	No	Yes
ROC	Yes	No	Yes
External Automatic Entries in same Runtime	Yes	No	Yes
External Automatic Entries on same host	Yes	No	Yes
Interhost external Automatic Entries	Yes	Yes	Yes

Note: *ROC uses external Automatic Entries to communicate header information.*

Considerations when Using the UCS Subsystems

If you have a very large Ispec transaction in your system, you might want to consider setting up your system as a UCS subsystem. The mechanism involves setting parameters.

However, at the installation stage of Runtime, you have to consider user privileges, because the Runtime must be installed under a USER-ID with security attributes that allow the loading of the UCS subsystems.

Note: *The UCS Subsystems are supported only on M Series hosts with memory paging facilities.*

Considerations when Using the OLTP

Systems could use the Open or OLTP software for the external Automatic Entry facility, providing distributed transaction processing across different types of machines and networks.

Section 3
Upgrade Process

Upgrading AB Suite

Before upgrading to AB Suite from any previous release, you need to:

- Inform Unisys about your upgrade plans and also share the completed migration qualification checklist. For this, either contact your local representative or reach us at ABSuite@unisys.com.

- Complete the migration qualification checklist and share it with Unisys.

- Back up your system and data.

- Ensure your environment meets the hardware and software requirements for this release.

- Install AB Suite Developer, if you want to upgrade the development environment.

- Install AB Suite Runtime.

Section 4
Release Functionality

AB Suite 9.0 comprises the following modeling and runtime functionalities:

- **CRDBLAYOUT**

  The Runtime Utility (LRU) is updated with new function CRDBLAYOUT used to recreate an RDMSLAYOUT file if the file is deleted or not found.

- **Secure FTP and Secure Communication**

  You can now transfer files between client and server securely. This is possible using the Use Secure FTP deployment configuration. On the host side, implicit secure FTP port 990 is used and a TLS certificate must be configured for FTP to secure the messages. On the client side, the matching Host TLS certificate must be installed in the Windows Trusted Store and secure FTP socket 990 is used for the secure file transfer. Certificate exchange is handled automatically, securing the connection over TCP/IP. Similarly, you can use Use Secure Communication deployment configuration to encrypt all the communication between client and DG host. This feature coupled with Secure FTP provides end to end secure communication between client and server.

- **Restart a failed host deploy**

  You can now restart failed deploy operation, and it will pick up from where it left off.

- **Copy/Paste and Cut/Paste in Developer**

  The copy/paste and cut/paste are now enabled for all types of elements when copying and pasting them between different contexts.

- **Modelling and Language Improvements**

  Segment Methods now support parameters. Furthermore, user-defined methods are now allowed within Ispecs and Reports.

  An attribute that is templated to a Group becomes a genuine instance of that Group. It now derives the complete internal structure of the Group, allowing to access and manipulate the sub-items within that Group instance using fully qualified names.

  We now support whole Array as a source to Flag and Auto LDL+ commands. We also support whole Array as a destination argument to MoveAuto LDL+ command.

Section 5
Restrictions and Known Limitations

The following areas of functionality have not been implemented for the OS 2200 platform in the AB Suite 9.0 release:

- Keywords

- Component Data Arrays

- Callable Segment Methods

- Glb.Financial Methods (Discount.Cash command)

- Build Preview

- Send.Print and Auto.Format command

Section 6
Support

Unisys brings together powerful hardware and software, multi-language support, and technical professionals to deliver 24-hour global service. All Unisys support services are fully integrated to provide you with real-time access to the critical information you need.

Unisys Support Center puts a wealth of technical information regarding hardware and software product support services at your fingertips. Unisys technical specialists provide updated symptom and solution information, including frequently asked questions.

Unisys Support Center is available 24 hours a day, 7 days a week.

Visit the Unisys Support Center at https://www.support.unisys.com/common/epa/home.aspx for more information.

Unisys Support Online allows you to:

- Search technical databases for information on a problem.

- Download Interim Correction (IC) files containing fixes.

- Track the progress of software updates and fixes.

- Participate in support forums.

- Access instructional information in Customer Technical Bulletins.

- Log and track support requests.

Contacting the Unisys Support Center

To initiate a support request, do either of the following:

- Submit a request online at http://www.service.unisys.com. After you log on or register, click Create Service Incident, and then follow the on-screen instructions. Enter the required information in the Support Request entry form.

- Contact the Unisys Call Reception Center (CRC). Access the Unisys Support website at https://www.unisys.com/about-us/support. The site provides links to various types of support.

Unisys Client Support Center

The Unisys Client Support Center (CSC) is your information resource for problems that cannot be resolved through Unisys Support Online or your site administrator. Your site administrator can place a support request electronically.

The Electronic Support Request interface allows you to pose technical questions, discuss technical issues, and escalate design concerns with the experts at the Unisys Client Support Center.

When logging an Electronic Support Request you will be asked to specify the:

- Hardware model number
- Operating environment
- Software product and level code

  The software product and level code for AB Suite Runtime for OS2200 Operating System Release 9.0 is; AGILE-BUS-SUITE-OS2200-9.0.

Direct Telephone Support

Unisys also offers direct telephone support. If you are located within the continental United States or Canada, you can call one of the following toll-free numbers during the times indicated in your service agreement:

- United States 800-328-0440 (prompt 4)
- Canada (English) 800-387-6181
- Canada (French) 800-361-8097

Customers outside the continental United States or Canada can visit the Unisys Support website at https://www.unisys.com/about-us/support/phone-support to find country wise contact information or contact the local Unisys representative for support.

Software Support Services

Unisys Client Support Centers offer Software Support Services, a full complement of technical services to help clients with cost effective, fast-cycle support.

If you are located in the United States, call Unisys directly on 800-328-0440 (prompt 4), or contact your local Unisys representative.

Section 7
Product Information

Documentation

Visit the Unisys Product Support Website at http://www.support.unisys.com for the latest version of the Unisys AB Suite 9.0 Information Center.

AB Suite product documentation located under the Application Development category of the Unisys Product Support site: https://www.support.unisys.com/common/epa/DocumentationLibraries.aspx provides technical product information on all software, including:

- AB Suite Developer

- AB Suite Runtime for the ClearPath® OS 2200 Operating System

- AB Suite Runtime for the ClearPath® MCP Operating System

- AB Suite Runtime for the Windows® Operating System

- AB Suite Client Tools

Section 8
Ordering Procedure

AB Suite Runtime Product Packaging

When you purchase an AB Suite Runtime for the ClearPath® OS 2200 Operating System Release 9.0 license, you will receive:

- AB Suite Runtime for the ClearPath® OS 2200 Operating System Release 9.0 installer.

- The right to use the client interfaces provided by the AB Suite Client Tools Release 9.0.

Ordering AB Suite

Contact your Unisys client executive, or an authorized Unisys Value Added Reseller, requesting this new release. After confirming entitlement for this release for your organization, they will submit the necessary software update order. The software will be posted on the Unisys software download site and your authorized contact will be informed of access details to download the software.