

Chorus BPM 2022

Release Notes

May 2022

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About This Guide


These release notes contain all feature enhancements, corrections, and known issues included in the Chorus BPM 2022 releases.


Formatting Conventions


The following formatting conventions are used throughout this guide.

- **Bold**—Keyboard keys, selected/typed/displayed values, and interface elements, such as buttons, labels, boxes, tables/columns, menus, and options.
- **Code**—Code words, phrases, and syntax you must type exactly as shown.

 **Note:** Helpful information for the current topic/procedure.

 **Important:** Necessary information crucial for the current topic/procedure.

 **Tip:** Information to increase your speed and efficiency while using the application.

 **Warning:** Your actions could cause a loss of data or fatal system error.

Customer Center


For current documentation, log on to the Chorus Customer Center at <https://ssctech.ssnc.cloud/choruscustomercenter> and go to the Knowledge Center.

Comments?

If you have comments, questions, or ideas regarding this guide, contact Technical Communications at techcomm@dstsystems.com.

Include the following information with your correspondence:

- Title of the guide and date on the cover
- Document chapter, section, and page number
- Your suggestion for how to correct or improve the documentation

 **Note:** This email address is only for documentation feedback. Contact your Client Relations representative for product support.

1. Chorus BPM 22.1

The following sections contain all feature enhancements, corrections, and known issues included in the Chorus BPM 22.1 release.

System Requirements

This section contains the system requirements for Chorus BPM 22.1.

Third-Party Software Included with the Release

The following third-party software is included with the Chorus BPM core installation:

- JQuery v3.3.1 (Chorus BPM core)
- JQuery UI v1.12.1 (Chorus BPM core)
- Snowbound RasterMaster® version 20.6.1 (Chorus BPM core, Content Viewer 22059200)
- Snowbound RasterMaster® version 13.12 (Chorus BPM core lib processing)
- Snowbound VirtualViewer® 5.2 (Document Splitter 1.2)
- Snowbound VirtualViewer® 5.7 (HTML Content Viewer 1.6)
- BPMN.IO 3.5.0 (Design Studio)
- TinyMCE v5.0.2 (Email Query Management)

Operational Analytics

The following third-party software is included with the Operational Analytics installation:

- WebFOCUS Reporting Server 8.2.0.3
- WebFOCUS Client 8.2.0.4
- Apache™ Tomcat™ 8.5

Tested Platforms

Chorus BPM 22.1 was tested on the following supported platform combinations.

Tip: More support information for browsers, server system requirements, and third-party software is available in the *Tested and Supported Operating System and Browsers Reference Guide* (located in the Chorus Customer Center at **Customer Care > Policies and Procedures**).

Operating System	JEE Application Server	HTTP Server	Databases	Manual Test	Auto. CI Test	Performance Test
Red Hat® Enterprise Linux® 7.5	JBoss Enterprise Application Platform (EAP) 7.2	JBoss Core Services Apache™ HTTP Server 2.4	Oracle 19c (19.3.0.0.0) and JDBC Driver (19.3.0.0.0)	X	X	X
Red Hat® Enterprise Linux® 7.5	IBM WebSphere® Liberty® V21.0.0.5	IBM HTTP Server (IHS) for WebSphere 9.0.0 with Fix Pack 11 (9.0.0.11)	Oracle 19c (19.3.0.0.0) and JDBC Driver (19.3.0.0.0)	X	X	N/A

Operating System	JEE Application Server	HTTP Server	Databases	Manual Test	Auto. CI Test	Performance Test
CentOS Linux® 7	Apache™ Tomcat™ 9.0.43	Apache™ HTTPD Server 2.4.6	Oracle 19c (19.3.0.0.0) and JDBC Driver (19.3.0.0.0)	X	X	N/A
Microsoft® Windows Server® 2016 (as a minimum) <i>Note:</i> Windows Server 2019 is recommended.	IBM WebSphere® Liberty® V21.0.0.5	IBM HTTP Server (IHS) for WebSphere 9.0.0 with Fix Pack 11 (9.0.0.11)	Microsoft SQL Server® 2019	X	X	N/A

Chorus BPM Applications and Peripherals

Chorus BPM 22.1 was tested with the following Chorus BPM applications and peripherals. The PTFs listed in this table are not included with the application or peripheral.

Application/Peripheral	PTFs applied/Notes
Chorus BPM File Transfer Service 6.1 (formerly AFT)	
Administration 3.2	PTF 10194200
HTML Content Viewer 1.6	
Content Viewer 22059200	
AWD/Archiver 3.2 with AWD/View 1.13.0	<ul style="list-style-type: none"> PTF 12285100 PTF 11340100
Content Services Admin 3.2	PTF 2_2 (available in the AWD10 Admin Add-on package)
Communications Word Add-in 2.5	
Document Renderer 2.3	
Chorus ROS Add-in 2.4.1 (Revisable Object Support)	
Process Test Automation (PTA) 22.1	
Enhanced Search 1.1	
Chorus UX Builder 1.0	

Note: Other service packs, patches, or PTFs may be available that provide additional functionality. For more information, contact Customer Care at one of the following numbers.

City	Country	Phone Number
Kansas City	United States	<ul style="list-style-type: none"> 800.685.1414 (7:00 A.M.-5:00 P.M. Central Time) After hours - Critical U.S. Issues Only - Call the same phone number and select Option 1 or 2, depending on whether you are self-hosted or hosted within the DST Data Center.
Surbiton	United Kingdom	+44.(0)20.8412.5100
Sydney	Australia	+61.(0)2.9295.9702
Hong Kong	China	+852.2534.1109
Bangkok	Thailand	+66.(0)2.685.8493

Workstation Operating Systems, Browsers, and Third-Party Requirements

Chorus BPM 22.1 was tested with the following operating systems, browsers, and third-party software.

Requirement	Description
Operating System	Windows 10 (64-bit)
Internet Browser	One of the following browsers with JavaScript™ and cookies enabled: <ul style="list-style-type: none"> Google Chrome version 101.0.x Microsoft Edge® version 101.0.x (64-bit) - Chromium based.
Java Runtime Environment (JRE)	<ul style="list-style-type: none"> JRE 8.0 Update 302 and Update 311 JRE 11 is a software requirement for the following: <ul style="list-style-type: none"> HTML Content Viewer 1.6 server Public Link Server

Enhancements

UX Builder

Support for UX Builder Workspace

Chorus UX Builder 1.0 is offered as a fully-integrated workspace within Chorus BPM 22.1. To support UX Builder, the WSUXBLDR resource provides access to the UX Builder workspace, and the UX Service was added as a new Design Studio service.

Impact UX Builder lets you create customer-facing, interactive web sites in a matter of hours using drag-and-drop elements.

Chorus UX Builder 1.0 is for hosted clients using Chorus BPM 22.1 or later. For more about UX Builder, see the following guides:

- [Chorus UX Builder 1.0 Release Notes](#)

- [Chorus UX Builder 1.0 Product Guide](#)
- [Chorus UX Builder 1.0 Installation and Configuration Guide](#)

Package Migration

Package Migration Workspace

The Package Migration workspace provides tools for a thoughtful approach to synchronize change from one environment to the next. It's designed for use with projects of any scale, from full upgrades to monthly maintenance routines. Package Migration for 22.1 focuses exclusively on forms, typically one of the toughest challenges during the migration process.

Impact Clients can use Package Migration to streamline the process of migrating forms and all the Data Dictionary and custom code content they often share.

For more information, see the [Chorus BPM 22.1 Package Migration Product Guide](#).

Security

(AWD-39938) Upgraded JCEK Encryption Algorithm to 256-bit

Chorus BPM 22.1 stores the AES keys as 256-bit encryption in a JCEKS format (Java Cryptography Extension KeyStore) to prevent the encryption keys from being exposed. This was updated from 128-bit in the 21.2 release.

Impact The upgrade addresses a security vulnerability.

For more security documentation, see the [Chorus BPM 22.1 Security Configuration Guide](#).

(AWD-34987) Accessing Stateless RESTful Services Using JWT Authentication

JSON Web Token (JWT) authentication was implemented as part of the Chorus BPM architecture modernization. It is a combination of access tokens and refresh tokens that provides maximum security and flexibility. In 22.1, JWT authentication has the ability to access stateless RESTful services.

Impact Clients can use JWT Authentication to access stateless RESTful services.

For more information, see "Configuring Chorus BPM to Access Stateless RESTful Services" in the [Chorus BPM Security Configuration Guide](#).

Design

(AWD-39400) Design Export/Import Maintains Link Between Service and Communications Document

Currently, when using the Export/Import functionality in Design Studio, some models containing communications services configurations are not automatically validated and deployed because the unique identifier code generated for a letter in the communications database may be different between environments. As a result, the administrator must manually edit the service configurations after import to re-link, validate, and deploy the affected models.

With this enhancement, the import functionality has been updated to look for a name match for the same letter if a unique identifier code match is not found. Designers can migrate content from one environment to another using the Migrate Communications utility, and an exported service design should contain the communications document ID and name. The service is automatically validated and deployed upon import.

Impact This enhancement links the Communication document to the service without the need for manual intervention during migration. Clients need to import both the Communication service (with Export/Import) and Communications document (with the Migrate Communications utility) for the solution to work.

Note: The Communications document must be moved into the new environment before the service can be deployed successfully. Additionally, the document must be moved with the same name that is used in the service. Changing the document name will cause the linkage to break.

For more about Export/Import, see the *Chorus BPM Model Design Processor Guide*. For more about the utility, see the *Chorus BPM Communications Administrator Guide*.

(AWD-40723) Ability to Track Service Model Usage Among Resources

Chorus BPM 22.1 contains a new database table, AWDADM010, that tracks the resources used by each service model version saved in Design Studio (deployed or not). The table can include the following:

- Communications clients used in **Communication** elements
- Communications data sources used in **Communication** elements
- Communications documents used in **Communication** elements
- Custom data types used anywhere in the service model
- Database services used in **Integration** elements
- RESTful services used in **Integration** elements
- SOAP services used in **Integration** elements
- Forms used in **Form** elements
- Rules used in **Rule** elements
- Service models used in **Service** or **Loop Task** elements

The Service Model Cross-Reference Seeder utility populates the AWDADM010 table for existing service models. The utility only processes the currently deployed version of each service model. To update the AWDADM010 table for a version that is not currently deployed, you need to open that version of the service model in Design Studio and save it.

Impact This enhancement delivers the infrastructure to provide designers or Communications administrators with visibility into the usage of their re-usable components and where they are configured.

- Helps avoid adverse results to other designs in the environment.
- Promotes consistency, clarity, and collaboration across/between designers and processes.
- Improves quality.
- Identifies related regression tests necessary to support change.

For more about running the utility, see the *Chorus BPM Model Design Processor Guide*.

Communications

Enhanced Reporting on Variables and Conditional Content Rules

The new Variables Report enables you to generate a .csv file that contains the variables used by a specific document or all of the selected client's documents. The Conditional Content Rule Report was expanded to include "then and "else" content for file type, content type, and category.

Impact Both enhancements provide easy access to additional communications data that was previously difficult to obtain.

For more about the reports, see the *Chorus BPM Communications Administrator Guide*.

Corrections

Design

(AWD-32108) User Form Errors Received

Process models imported into new Design Studio from SP8.5 cause form errors at run time.

Resolution Modifications were made to better handle null pointer exceptions.

(AWD-39837) Forms Without a Title Cause Errors with Process Test Automation

When forms without a title are used with Process Test Automation (PTA), HTML errors are returned.

Resolution Modifications were made for HTML forms to handle forms with no data in the head tag.

(AWD-33302) Comparison Values with Service Variables Are Inaccurate

When using comparisons such as Greater and Lesser with service variables, the expression is not comparing the values correctly.

Resolution Modifications were made to VariableMappedEnum to return the correct response format.

Processor Workspace

(AWD-39245) Non-AWD Forms with Processor Workspace

When testing with non-AWD forms in new Processor workspace, the forms are not loading in the popped-out window.

Resolution Modifications were made to accommodate non-AWD forms in the popped-out window.

Note: There are still unknowns around how clients' custom forms will behave with new Processor workspace. While this specific issue is resolved, there may be others.

(AWD-40305) Radio Buttons Are Overlapped in New Processor Workspace

Radio buttons on forms in new Processor workspace are overlapping each other at run time.

Resolution Modifications were made to apply the correct CSS styling for new Processor workspace.

(AWD-38961) Date Field Is Not Accurate in New Processor Workspace Search

Custom search in new Processor workspace does not return the same results as Quick Searches.

Resolution Modifications were made so the Date field is converted to server time.

(AWD-40372) Data in Primary Index Fields with a 001 in Sequence Field Does Not Display

Note: This is a fix applied from Chorus BPM 21.1.1.7.

Issue When a field on a portal form is a primary index field and has 001 in the sequence field, the data will display in View Data but not on the form after an update.

Resolution Modifications were made to display data on the form with a 001 sequence field even if the field is a primary index field.

Server

(AWD-40373) Unable to Create Large Source Files Using SOAP Calls

Note: This is a fix applied from Chorus BPM 21.1.1.7.

Issue When you attempt to attach large files, 30mg or larger, through a SOAP call, the image is not created and an "out of memory" error occurs.

Resolution Modifications were made to change the handler of SOAP requests, allowing SOAP messages to be read without serializing the attachment into XML.

(AWD-40374) AWD Authentication Challenge and SSO

Note: This is a fix applied from AWD 20.3 HF 22025100.

Issue When the AWD/Chorus session is timed out, users might be challenged with an authentication prompt to continue their session. This authentication prompt uses the user inputs to authenticate directly with AWD/Chorus and not the SSO service. When AWD/Chorus is configured to use SSO for authentication, this authentication prompt might lead to users being disabled when they enter their username/password using their SSO user credentials.

Resolution A new configuration key, SSOAuthenticationPromptDeactivate, was added to the Configuration Settings Table (WM7U999S) to provide an option to suppress the authentication prompt. The key must be manually set up with the following values in the Chorus Configuration Console:

- **Key:** SSOAuthenticationPromptDeactivate
- **Type:** Text
- **Value:** Use "True" (case-insensitive) to enable and suppress the authentication prompt. Option is otherwise disabled.

See the *Chorus BPM Server Administrator Guide* for more about configuration parameters.

Communications

(AWD-35695) Communications Migration Utility Import Fails When Variables Are Deleted from Source Content

Issue An error occurs when content exists on the target and source system and a variable is removed from the content on the source system. If the user exports content from the source and attempts to import it to the target system, the process returns errors. This issue also exists when content is contained within a document and the client attempts to import the document.

Resolution Modifications were made to ensure that variables removed from imported content are handled properly.

(AWD-34464) Import Error When User Changes Default Content on Conditional Content Item

Issue An issue occurs when a conditional content item exists on the source and target system, and the user changes the default content on the source and exports it. When the user attempts to import the related content or document to the target system, an error occurs.

Resolution Modifications were made to ensure that changes in the default content for a conditional content item are handled properly by the import process.

(AWD-38348) Communications Migration Utility Import Issue When Migrating New Document with Reference to Existing Content

Issue When migrating new communications content using the Communications Migration Utility (export/import) and existing content used by the new letter exists in the target system, the relationship between the new letter and the existing content is not being created.

Resolution Modifications were made to ensure that existing content is handled properly when importing a document.

Case Management

(AWD-40375) Dependencies in Case Management Causes System to Freeze

Note: This is a fix applied from Chorus BPM 21.1.1.5.

Issue When a case template has dependencies, the case will create to the END queue without problems, but the system will lock up the transactions.

Resolution Modifications were made to resolve the dependency issue.

Known Issues

Processor Workspace

(AWD-41679) User Cannot Send Faxes for Orphaned Sources

Issue After adding details in the Fax dialog and clicking **Fax Out**, new sources are not being created when using fax out on an orphaned source.

Workaround There is no workaround at this time.

(AWD-40342) Suspended Activation Date Displays Incorrect Timezone

Issue Suspended work displays the Suspended Activation Date in server timezone upon hovering over the clock icon. It should display the local timezone instead.

Workaround There is no workaround at this time.

Package Migration

(AWD-41767) Data Dictionary Fields Are Exported Even When They Cannot Be Imported

Issue There are a few reasons why a data dictionary field may fail to be imported. For instance, the field may have Data Dictionary Field/Field Value Domain Table (W26) data that duplicates existing W26 table data, or it may not have Data Language Table (W27) data. In these situations, a validation error should prevent the user from exporting the field. In the current release, however, the field can be exported. Consequently, when the user tries to import the field, it will fail. Additionally, any form that uses the field can be successfully exported and imported.

Workaround The workaround is to correct the problem that caused the data dictionary field to fail upon import (for example, by giving it the appropriate W27 table data in the source environment) and then import the data dictionary field again.

(AWD-41821) Readme.txt File Does Not Display Dependent Services of a Dynamic Form

Issue Dynamic forms are able to execute Design automation services. The Package Migration utility captures the names of these services as dependencies needed by a chosen dynamic form. The readme.txt file embedded within the package migration ZIP file should list these services under the form's dependency heading. In some situations, however, only "null" values appear. Design services are not currently supported by Package Migration, so this issue has no impact on the actual export/import process for forms and dictionary fields.

Workaround There is no workaround at this time.

(AWD-41822) Show Differences Window Incorrectly Indicates a Data Language for a Field

Issue This issue only occurs if a field on a form does not include a data language. (Note: The front end should not allow this situation to exist.) On the Show Differences window during the import process, the field is presented as having a data language. Other pages during import (such as details) are not impacted.

Workaround There is no workaround at this time.

(AWD-41754) Form Imports Even When One Or More of Its Data Dictionary Fields Fails to Import

Issue There are a few reasons why a data dictionary field may fail to be imported. For instance, the field may have Data Dictionary Field/Field Value Domain Table (W26) data that duplicates existing W26 table data, or it may not have Data Language Table (W27) data. In these situations, if a form that uses the field is also being imported, that form's import should fail. However, in this release, the form is still being imported.

Workaround The workaround is to correct the problem that caused the data dictionary field to fail upon import (for example, by giving it W27 table data in the source environment) and then import the data dictionary field again.

(AWD-41900) AWDADM010 Table Not Updating Correctly for Saved Process Model

Issue When a version of a process model is saved in Design Studio, the AWDADM010 table is supposed to be updated to track the sub-processes and signal processes used by that version. In the current release, the AWDADM010 table is not being updated with this information.

Workaround There is no workaround at this time. Future releases will store this data correctly when a version of a process model is saved.

(AWD-41899) Incorrect REF_GUID_CHR Column Value in the AWDADM010 Table

Issue When a version of a process model or service model is saved in Design Studio, the AWDADM010 table is updated to track the external resources used by that version (for example, forms used by the process or rules used by the service model). When a version of a process model uses a sub-process, that sub-process' PROCESS_GUID value from the Process Modeler ID/GUID Table (WU9) should be stored in raw format in the AWDADM010 table's REF_GUID column and in upper case with dashes in the REF_GUID_CHR column. Likewise, when a version of a service model uses another service model, that model's SERVICE_GUID value from the Service Designer ID Table (WV6) should be stored in the REF_GUID and REF_GUID_CHR columns. In the current release, these values are being stored correctly in the REF_GUID column, but they are being stored as upper case strings without dashes in the REF_GUID_CHR column.

Workaround There is no workaround at this time. Future releases will store the value correctly when a version of a process model or service model is saved. Additionally, any code that uses these values will be written to work regardless of whether or not values include dashes.

Enhanced Search

(AWD-41409) Search Results Incorrect for Case Management Search

Issue Using the following search criteria in Enhanced Search, **Case Management Search** results return objects (folders, cases, transactions, and sources) that are not created in the Case Management workspace:

- **Both** option selected.
- **Contains** box includes a keyword that exists in cases, tasks, and other objects (folders, cases, transactions, and sources) not created in Case Management.

The search results should only include cases and tasks created in Case Management.

Workaround There is no workaround at this time.

Upgrade Considerations

For upgrade considerations, see the *Upgrade Considerations Guide* that is scheduled for publication shortly after the 22.1 release.

Appendix A. Third-Party Software Disclaimers

Chorus BPM includes software from third parties. License agreements require that SS&C Technologies Holdings, Inc. provide the disclaimers provided with the software.

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