



Chorus Client Modernization Guide

21.2 and Beyond





SS&C | Blue Prism® Chorus 21.2 is your path to upgrade to a supported Chorus version with maintained legacy functionalities:

- EnCorr
- Viewstation/older Processor Workspace forms/CSDs
- KE/ST

This gives you time to:

1. Validate inventory of older components.
2. Evaluate and estimate consolidation and transformation efforts.
3. Utilize old and new functionality (e.g., EnCorr and communications) simultaneously.
4. Remain on a supported version while the above efforts are underway (21.2 is supported through to December 2024).

While the legacy functionality above will continue to work in Chorus version 21.2, clients will lose much of that functionality when upgrading to 22.1 and beyond. They will need to transition to the modern technology base at this time. This document is your guide to ensure you can leverage all that Chorus offers in the future.

Chorus' professional services team is here to help with the initiation and support phase of your modernization journey. We can deploy a team of experts to guide you through the project.

We'll begin your upgrade journey with you asking key questions:

- What functionality do I need to address before/during our upgrade?
- When should we start planning for our upgrade?
- What happens if we don't upgrade or wait to upgrade?
- What does the upgrade cost?
- How long will it take?
- What else should I be thinking about?



Topics for Consideration and Remediation

Suggested priority order

Topic	Considerations
Processing Workspace (Forms)	<ol style="list-style-type: none"> 1. Standard quicker but requires JScript/CSS review/remediation 2. Move to UX Builder reengineering 3. Dynamic Forms reengineering
EnCorr (Letters) to Communications	Types > content > templates > versions
Workflows to Processes	Enterprise approach (removing redundant flows) versus recreate versus full reengineering
Workflow Services (KE/ST)	Move to processes/services
Integrations	API first/replacement, updating custom integrations, calls and services testing
Operational Analytics (from BI)	Report complexity, data availability, # of dashboards, links, custom reporting needs
Custom Code	Replace with baseline functionality where possible, update JS/web services, lookups
Administration	Changes, user preference updates, test plan set-up

In the following pages, we detail some of the considerations and important decisions to allow clients to move beyond 21.2.



Forms: UI Refresh for New Processor Workspace Chorus 21.2+

We want to enable you to efficiently recreate your current UI forms/screens in the new Processor Workspace.

Supported UX on 21.2 and Deprecated on 22.1

Viewstation, Client 3.2, classic workspace and legacy workspace.

Considerations

- Time
- Custom code
- Change management
- Training
- Implement HTML CV for viewing images

How we can help

To get started, we offer a pre-project session to determine what type of conversion is right for you:

- Do you want to convert users by business unit or in an all-in-one event?
- Are you looking to update existing forms or reengineer them using Dynamic Forms or UX Builder?

Regardless of your choice, we'll start with a planning session to further understand what user interface or combination of user interfaces your associates use.

What to ask

Next, we'll look for answers to some of the following questions:

- How many active forms are you using?
- What type of custom codes are you using on your screens?
 - Custom DLLs
 - CSS
 - JavaScript
 - Interoperability
 - External systems
- What logic, if any, is defined on the action buttons?
- Do you have external forms?
- What fields are required?
- What does your search screen look like/how does it operate?
- Do you use templates on any forms?

Once we have a good inventory and a holistic view of your user interface needs, we'll group your forms into logical units to organize requirements and subsequent regression testing. We work with your supervisors, SMEs or other business champions to receive the screen prints and associated screen validations; we quickly recreate the screens and send them back to you to kick off the regression testing phase.

If any of the logic behind the screens needs to be refactored, we'll separate those deliverables into development tasks and merge that functionality with the new screen design to ensure that the new deliverables are approved.

This process will continue iteratively until all forms/screens are accounted for. As the client, you will be responsible for system testing and production readiness. We'll use the new package migration utility to migrate forms and associated code from environment to environment.

To complete the program, we recognize that the users will need portal training to understand the new landscape of their user experience.

How much effort is required for forms/screen updates

The cost will vary based on the number of screens and the extensiveness/complexity of the custom code and validations that need refactoring.

Screen Description	Amount of Effort*
Simple screens with no custom code	1 - 2 hours
Screens with minimal validation	2 - 4 hours
Complex screens	5 - 10 hours

Note: Effort doesn't include requirements gathering, reengineering or testing. Moving from forms to Dynamic Forms or UX Builder will require additional time (varied depending on complexity).



EnCorr to Communications

Encorr end-of-life is December 31, 2024; it's not supported in the new Processor Workspace. Clients are required to migrate from EnCorr to Communications after Chorus 21.2 to support outbound correspondence.

Where Do I Start? Know What You Have

Review EnCorr inventory to find out:

- How often is content currently used?
- How many EnCorr letter types do I have?
- Can some content be consolidated, such as duplicate content with similar wording (e.g., closing paragraphs into one)? Look for opportunities where you can use conditional content rules.

Options to convert to Communications

- Convert EnCorr to Communications using the CCU tool.
- Evaluate EnCorr content; manually add content to Communications.
 - Copy/paste content then edit as needed.
- Hybrid: Convert some EnCorr content as well as create new content in Communications.
- Start fresh: Build all new content with a Communications implementation.

Things to keep in mind

- Client version compatibility.
 - Cross-reference enhancements and fixes with your current Chorus version.
 - Review fixes and outstanding issues to avoid potential “gotchas”.
- Reminders: Communications does not support reminders the same way as EnCorr.
 - No database of letters with Communications.
 - Reminder letters can be configured when automating the communication.
- Automated letter delivery methods currently require two separate letter types if both delivery channels send automated letters.
- Categories cannot be deleted (pre 21.2.3) but can be changed.
- Variables cannot be deleted (pre 21.2.3).
- Communications cannot be generated ad hoc versus EnCorr, which can be launched at any point when processing a work item.

How much effort is required to convert to Communications?

The costs will vary based on several factors that inform the level of complexity including automations, reminders, variables, enclosures, etc.

Levels of Complexity: A Rough Guide

Simple	Medium	Complex	Very Complex
<ul style="list-style-type: none"> No automated letters No reminders No internal or external variables No QC No third-party printing No CC distribution No enclosures 	<ul style="list-style-type: none"> Very few automated letters (less than 25%) No reminders A small number of internal and external variables No QC No third-party printing No CC distribution A very small number of enclosures (less than 10) 	<ul style="list-style-type: none"> More than half of letters are automated (50% – 75%) Many reminders are required Prevalent internal and external variables QC is needed for most Third-party printing required CC distribution required A large number of enclosures 	<ul style="list-style-type: none"> Most letters are automated Reminders Many internal and many external variables QC required Third-party printing required CC distribution required Most letters contain enclosures
Amount of Effort per Letter			
4 – 8 hours	9 – 12 hours	13 – 24 hours	24 – 36 hours
Testing Effort per Letter			
1 hour	2 hours	3 hours	4 – 5 hours

Note: Flow changes may be necessary and are not included in the effort estimations above.

Services KE/ST

AWD ST/KE are no longer supported and are vulnerable to OS/security patches; therefore, a transition to modern Chorus technology is required. This includes EnCorr and ST/KE automations. This will impact upgrade strategy and cadence.

Nuances:

- EnCorr will only be supported on 21.2 or earlier versions.
- EnCorr will not run on the classic with IE 11; only legacy (not NPW) and only in 21.2.1 for EnCorr 4.
- KE may not work after January 2024. Interoperability will work in 23.x with an upcoming fix.
- New processor (cards) work with TA Desktop and TA Portal (at a certain level) will work in 21.2.x except for external systems (See above 21.2.2.0).
- TA Portal allows for external launches (using chromium).

The changes above are being driven by technology and browser changes. The new processor is angular and will not function properly with legacy applications such as KE.

How much effort is required for KE/ST remediation?

The costs will vary based on the complexity that needs to be refactored.

Complexity	Amount of Effort per Remediation*
Simple	1 - 2 hours
Medium	2 - 3 hours
Highly complex	4 - 5 hours
Extremely complex	5+ hours

Note: Effort does not include requirements gathering, reengineering or testing.

Workflow to Processes

Process Reengineering

Some reengineering will be required to mediate functionality that is end-of-life, such as Encorr to Communications and KE/ST. Other features and functionality could be completely replaced by leveraging baseline functionality depending on which versions of Chorus you come from.

Note: While some reengineering will be relatively straightforward, some may benefit from deep-dive sessions with SMEs and follow a similar path to onboarding or developing a brand-new process, rather than just recreating a process flow to replace a workflow with no or minimal changes. Ultimately, it will be up to the business to determine which approach is best.

As with any transformational effort, process reengineering is complex and takes effort. It can be disruptive, complicated and create anxiety for employees not accustomed to significant change. Conversely, it can also lead to significant efficiency gains and higher employee satisfaction by freeing up employees to work on more valuable tasks and allowing your business to scale and increase margins. There are different ways to tackle process reengineering and, depending on business needs, resources and timing, you should consider several factors:

1. Approach: by business unit versus centralized/unifying; recreate versus consolidate and unify.
2. Resources: new team versus existing employees; outsource some versus all reengineering.
3. Release cadence: big bang (all at once) versus staggered.

Some of the functionality that exists in processes are not available in workflows (partial list):

- Attach clones to existing parent
- Define attachment viewing preferences
- Clear button to dismiss newly created items
- Enhanced comments functionality
- Dynamic forms and UX Builder forms
- Export history
- Enhanced relationship functionality
- Enhanced search
- Sorting and filtering work
- Variable timers
- Transient data within a process

How much effort is required for reengineering?

Costs will vary based on complexity, integrations, the enhanced functionality needed and the availability of SMEs, resources, knowledge, etc. You can use the below to develop some high-level ballparks.

Workflow Complexity/Additional Components	Effort per Process
Simple: less than 10 steps, 5 screens or less per, no CSS	1 - 2 weeks
Medium: 10 - 20 steps, 10 screens or less per, no CSS	2 - 3 weeks
Complex: 20 - 50 steps, 10 screens or less per, no CSS	3 - 5 weeks
Very complex: 75+ steps, 10 screens or less per, no CSS	5 - 7+ weeks
Integrations work (effort in addition to the above)	+ 1 - 3 weeks
Custom CSS (effort in addition to the above)	+ 1 - 2 weeks

Note: Effort does not include requirements gathering or testing. If full reengineering with detailed examination, update or changes to requirements is needed, additional time will be required. This doesn't include effort for other components listed in this document such as Encorr to Comms, KE/ST, Custom Code, etc.



Additional Considerations for Estimations

Operational Analytics

If you're coming from an older version of Chorus, it's possible you are still using BI, which is no longer supported. Even if you're coming from a version that has Operational Analytics (OA), it's possible the use has been limited or non-existent. The latest version (OA 2.0) has greater flexibility, enhanced reporting objects, new visualization tools and much more.

What does it cost? If you're already using OA, have an internal SME on OA or are happy with the "out of the box reports", there may not be additional costs. If you're going to want or need new reports, rebuild older reports or want to develop a new SME or create a Center of Excellence (CoE), Chorus consulting and implementation is now providing "packaged" offerings of analytics support and consulting. The packages focus both on supporting our client's upgrade to OA 2.0, their anticipated training needs and OA consultant hours.

Package	Description	Fees (USD Fixed)
OA 2.0 Upgrade Support	Upgrade Support Consulting <ul style="list-style-type: none"> Preparation Review of new functionality Troubleshooting 10 hours of analytics consulting 	\$2,500
Designer Training I	Training <ul style="list-style-type: none"> Key differences between existing Operational Analytics and OA 2.0 Chorus process flow, "design with the end in mind" OA 2.0 designer tool and basic navigation High-level report/chart/dashboard use/modification Deliverable out of training is five templates Analytics Consulting (40 hours) <ul style="list-style-type: none"> Build of up to ten additional reports Report/dashboard/deployment review and support 	\$5,000 \$10,000
Total		\$15,000
Designer Training II	Training <ul style="list-style-type: none"> Key differences between existing Operational Analytics and OA 2.0 Chorus process flow, "design with the end in mind" OA 2.0 designer tool Basic navigation High level report/chart/dashboard use/modification Deliverable out of training is five templates Analytics Consulting (60 hours) <p>Advanced design concepts</p> <ul style="list-style-type: none"> Joins, hold files and techniques for optimizing tool performance <p>Customized dashboards/reports/charts</p> <ul style="list-style-type: none"> Build/assist, deployment and post-implementation support 	\$5,000 \$10,000
Total		\$20,000

Integrations/Custom Code

While most custom code may function as intended through upgrades, it's always possible a change or update is necessary. It's possible that API call(s) will fail, or that if you move from an older workspace to the new Processor Workspace and have JavaScript, you'll need to make updates to address differences in browser and UI libraries. There have been many improvements, enhancements and new features that could also eliminate the need for custom code, where baseline functionality could replace or even provide a better solution or user experience. The type, complexity and amount of code will all play a role in determining effort to remediate.

How much effort is required?

Costs will vary based on complexity, integrations, functionality needed and availability of SMEs, resources, knowledge, etc. You can use the below to develop some very high-level ballparks.

Function/Complexity	Effort
Simple review or minor updates	1 – 4 hours
Medium (e.g., custom lookups)	4 – 16 hours
Complex (e.g., custom web services)	16 – 25 hours

Other considerations

In addition to the effort listed above, there are several areas that could require additional investment/support as part of your upgrade journey. For example, project management will be required to support any of the features, functionality and user changes and will vary based on the size and complexity of the project. We've listed a few of these below with some guidance around how to estimate effort.

Task	Effort Considerations
Testing support	Based on screens, flows, tasks, etc., to be tested.
Change management	Based on approach, resources, release cadence, etc.
Implementation support	Based on need; could be supported internally and/or externally.
Project management	Based on project size, scope and concurrency.
Administration	Based on project scope, number of changes and number of updates to users/LOBs/groups/statuses/queues.

Note: MS IE11 is out of support as of June 15, 2022. A Microsoft update now forces IE11 to open Edge in IE mode, which is not a supported configuration, but should work as a short-term solution.

SS&C Professional Services Support

Need assistance in deciding where to begin? Need help developing a ballpark? SS&C consulting and implementation services has developed two offerings to assist, with options to be as cost-effective as possible to fit your budget. Packages include access to and hours for SS&C consultants, developers, project managers and/or technical SMEs. Packages are flat rate/fixed fee and deliverables are limited to hours and information only.

Discover

If you don't know where to start, we can work with you to gather all relevant information, examples or samples and turn that information into a ballpark cost estimate. This package is intended to be collaborative and assist with fact-finding, sample-gathering of existing assets (EnCorr letters, CSDs, JavaScript, etc.) and estimating effort based on that information.

Evaluation and Validation

If you've already put together detailed estimates, or even if you only have high-level ballparks and need assistance, we can work with you to evaluate, refine or validate those estimates.

Pricing (for either offering; in USD)

Small	Up to 25 hours	\$7,000
Medium	Up to 50 hours	\$13,000
Large	Up to 100 hours	\$25,000

Outsourcing/Up-Sourcing

S&C Blue Prism has resources that can help with any or all your modernization needs as you progress through your journey. Whether you need a consultant or developer for a few hours per week to up-source (assist) or need SS&C Blue Prism to estimate, manage and execute on the entire project, we're here to help. The Rate Matrix can be used to help you develop ballparks for planning purposes. Please note, these rates are as of today and are subject to change based on when an engagement is agreed to.

Note: Prices are for North American-based resources. India-based team resource pricing is available upon request and subject to availability.

Rate Matrix (USD)

Role	Rate
Project manager	\$250/hour
Lead business consultant	\$260/hour
Business (build) consultant	\$245/hour
Custom code developer	\$250/hour
Technical consultant	\$275/hour
Business analyst	\$230/hour

To find out more about how SS&C Blue Prism can help with the next stage in your own intelligent automation journey, contact us.

Contact Us

Email Matt Scott at matt.scott@sscinc.com to learn how SS&C Blue Prism can help your organization realize transformational business value with intelligent automation.



SS&C Blue Prism allows organizations to deliver transformational business value via our intelligent automation platform. We make products with one aim in mind – to improve experiences for people. By connecting people and digital workers, you can use the right resource, every time, for the best customer and business outcomes. We supply enterprise-wide software that not only provides full control and governance but also allows businesses to react fast to continuous change.

Exceed customer expectations, stay competitive, accelerate growth.

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