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OnBase by Hyland

OnBase Certified Admin Handbook

Goal: To provide new OnBase certified admins with details of expectations for utilization of the OnBase environment at CU along with tips and suggestions from the certified admin group.

Complexity Level: Certified Departmental Admins

7/29/2026

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Background

Congratulations! You've completed the OnBase Certified System Administrator training by Hyland. The certification training provides you with a general understanding of how to implement OnBase configurations. This guide was created to apply that training to our use of OnBase at CU and outline expectations for usage of our implementation. In some sections, helpful tips are also listed based on the experience of other admins at CU.

This guide is updated regularly, so please reference it often.

This guide should be used as a supplement to all formal training materials. When the expectations in this guide or our other documentation seem to contradict the materials from your course or published by Hyland, or if you have any questions or concerns, contact UIS_DM_Support@cu.edu for assistance.

There will be cases where access is limited or you will not be able to perform the same steps, or we have additional requirements beyond what is required to make something work. Please continue to reference Hyland documentation and training resources, but apply what you learn within our organizational guidelines.

Unless otherwise noted, these guidelines apply to all OnBase environments.

Hyland Provided Resources

As a certified admin you are expected to know how to utilize the Hyland-provided support resources.

- Hyland University (formerly Training.OnBase.com): eLearning, Self-Paced, and Instructor-led courses
    - Premium Subscription: Premium training content
    - OnBase Learning Paths: Each Learning Path is a logical, step-by-step sequence of OnBase courses
    - OnBase Certifications
        - Recertification Options
            - Generally certifications are valid for two years
            - UIS does not require that certifications are kept up to date, but feel free to refresh your learning with recert courses or other resources.
        - Beginning in 2019, we have an agreement with Hyland to provide a group training to CU users once per year (typically around September-October).
            - The topic varies per year.
            - This training is available at no additional cost to departments.
            - Space is limited.
        - Departments can fund certifications/recertifications/instructor-led training for their staff at any time.
    - On-demand lab environments
        - Many of these labs offer useful hands-on training opportunities for different configuration areas. Some will be required before gaining access to certain functional groups.
        - As new versions of OnBase are released, sandbox environments are posted here where you can explore new features (ex. OnBase Sandbox).
- Hyland Connect: Network with Hyland customers, partners and employees through forums, blogs and user groups.
    - Make sure you are signed in to see everything.

    - Higher Education OnBase User Group (formerly known as the VOGUE): This higher ed user group offers newsletters, webinars, forums and user meetings to its members and provides an opportunity for you to network with other Higher Education-based OnBase users.
    - Sign up for the Higher Education User Group Newsletter
    - Join the Events group for Higher Education
- Documentation Portal: MRGs now maintained online, much better for searching, bookmarking, sharing with other users.
    - Make sure you are signed in to see everything.
- OnBase Community: Primarily used by the UIS team for support and downloads now that other features have moved to Connect.
    - OnBase Technical Support Knowledge Base: Knowledge Base articles by Hyland's Technical Support team

There are also two types of events offered by Hyland on a regular basis which allow you to renew your certifications and learn more:

- CommunityLive: annual user conference, location changes each year. First two days are technical training, following three days are shorter conference sessions including customer presentations, networking, product demos, etc. Group discounts are usually available depending on how many people from CU attend. Repeat attendees have also been offered a discount in the past.
- TechQuest: at Hyland headquarters in Ohio. Week-long technical training, offered 2-3 times per year.

Module Reference Guides (MRG)

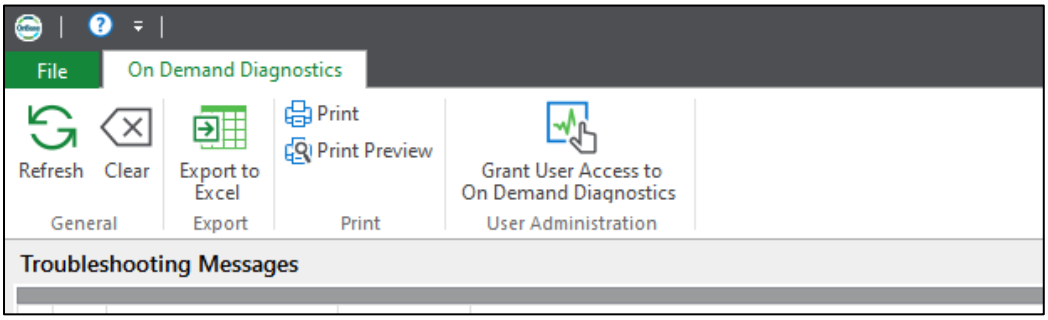
Hyland launched a new documentation portal starting with version 22.1. This is the recommended tool for accessing product documentation for version 22+.

Prior version MRGs are available in OnBase and they are Full Text Searchable. To access these, go to Document Retrieval, select the **System Documents** document type group then select the **X - X - MRG (Module Reference Guide)** document type.

General Help and Troubleshooting

- Always check the UIS OnBase Training page for guides and instructions, along with the OnBase Technical Support page for common issues and resolutions.
- Check OnBase Community forums. Make sure you join the Higher Ed OnBase User Group (formerly known as the VOGUE) to get newsletters and invites to webinars hosted by the user group.

- Use UIS_DM_Support@cu.edu to contact the UIS Enterprise Content Services team (instead of contacting team members individually).
- Use the Document Management Project Team Certified Administrators distribution list to contact the CU's departmental admins.
- Our admin call (scheduled monthly) is a good time to bring up any topics you'd like to discuss and get ideas/feedback from other admins. If available, please listen to the recordings for any meetings you miss, as important updates are provided and discussed.
- There are a variety of tools available for troubleshooting.
    - These premium subscription courses cover troubleshooting topics:
        - Troubleshooting: Techniques & Utilities
        - Unity Client: Advanced Administrator Tips
        - Workflow Troubleshooting
    - Coordinate with UIS for information from diagnostics console. Diagnostics console needs to already be running to capture details and the logging level may need to be adjusted to capture the relevant activity.
    - Use **On Demand Diagnostics** in the Unity client for more details when troubleshooting Workflow or WorkView issues. This will often provide more information than is available in diagnostics console, especially in production.
        - File > Troubleshooting > On Demand Diagnostics, then set the logging level. More information is available in the Unity client, Workflow and WorkView MRGs and at Workflow: On Demand Diagnostics
        - This is available to certified admins and can be temporarily granted to other users. This enables logging for them for 30 minutes.

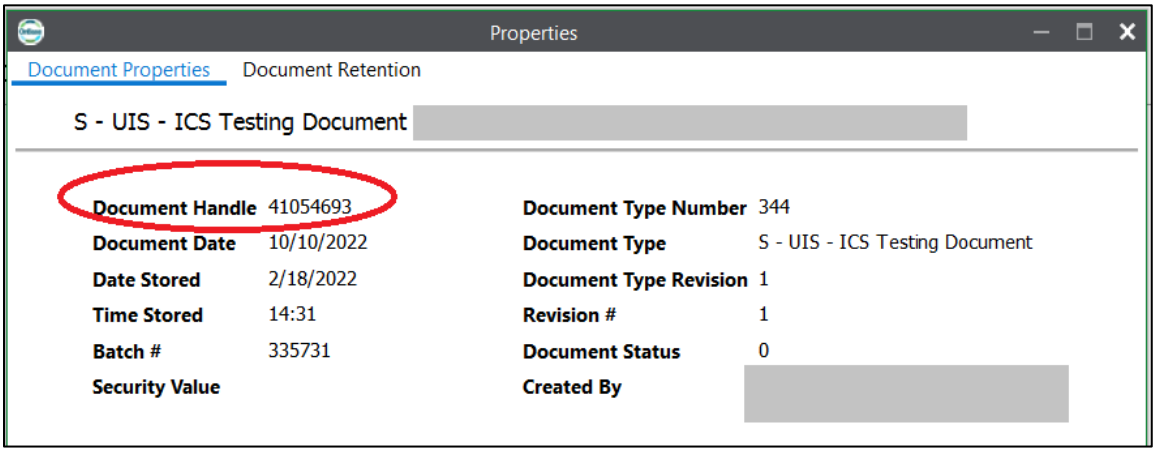


- When requesting assistance with troubleshooting, provide:
    - The **Document Handle** for relevant documents.
    - Which **environment** is being used (if the issue is in production, can you reproduce it in non-production?)
    - Which **client**(s) is being used
    - Which **users** are affected (is it all users or certain users)

- Which **configuration items** are being used (ex. Life cycle name, form template name, etc.)
- **When** and under what **conditions** the issue occurs; give us steps to reproduce the issue. When did the issue begin? What changed since it last worked?
- Any **error messages** received. If prompted to create a bug report, save the file to your desktop and attach it to your email. Screenshots are also helpful.
- What steps have already been taken to **identify or resolve** the issue.

Document Handle

- The Document Handle is the unique ID assigned to each document in OnBase.
- Document Handle can also be referred to as Document ID, Document #, or Itemnum.
- Document Handles can be found by right mouse clicking on the document and selecting "Properties" from the menu.



Environments

There are four OnBase environments that each serve specific purposes:

- **DMOPRD**: Production environment
  - **Do not test in production**.
- **DMOSTG**: Stage environment
  - Used for load testing and production migration testing
  - Refreshed from DMOPRD each Sunday
  - In Configuration, you will see a "system activation" warning/message that can be ignored. Since everything is new every 7 days, we are always within the licensing grace period.
- **DMOTST**: Test environment
  - Departmental development/testing environment
  - Migrations go from here to DMOSTG then DMOPRD

    - Refreshed from DMOPRD occasionally (2-4 times per year), no set schedule but you will be given plenty of advance notice.
- **DMODEV**: Dev environment
    - UIS internal testing environment, used for version testing and infrastructure change testing
    - May be refreshed without warning, so please do not do your regular configuration and testing here.

All departmental development should occur in the DMOTST environment.

You will see these environment names at the top of all client applications; make sure you're in the correct environment.

Service Alerts

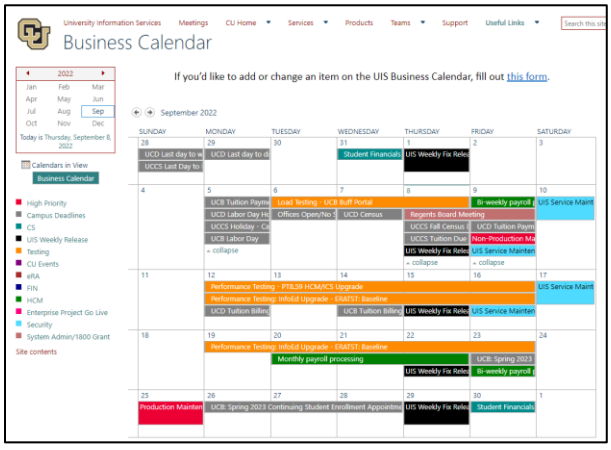
The RAVE Notification System is an alerting service used by the University of Colorado System Administration to communicate information regarding IT service maintenance events, IT service interruptions. This includes but is not specific to OnBase, and may be beneficial to you to receive updates related to OnBase and other applications you use.

Register for system RAVE alerts.

Maintenance Windows

It's important to understand when UIS will be conducting maintenance in both the production and non-production environments. During environment maintenance, certain environments may be unavailable or connections may be disrupted at any time.

The most current and up to date maintenance windows can be found on the UIS Business calendar SharePoint site. All production and non-production maintenance will be listed with a red entry on the calendar. If you do not have access to the calendar, you can request access.



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You can also subscribe to get notifications here: https://www.cu.edu/blog/maintenance-matters

Upgrades and Refreshes

- The non-prod environments (STG/TST/DEV) are periodically refreshed (copied) from production so that the database and disk groups are the same across environments.
    - This allows for better testing, since the non-production environment will more closely match the circumstances in production. This also clears out any bad configurations and makes migrations easier since the environments will have fewer differences.
    - A refresh involves taking a full copy of the production OnBase database and disk groups as of a certain time. That copy then replaces the database and disk groups of the environment being refreshed.
    - A refresh generally takes about half a day, and during that time the environment being refreshed will be unavailable.
    - Prior to a refresh, any items still in development will need to be exported to a file (which can be re-imported back to non-production after the refresh) or migrated to production in order to not lose your work.
        - You will be given plenty of notice prior to a TST refresh so this can be completed.
        - We do our best to identify configuration items that require attention before a refresh, but you will need to be most familiar with the work in progress for your department. The reporting dashboards in the ONBASE REFRESH - ENVIRONMENT COMPARISON category should help identify items needing to be backed up or migrated.
        - Refer to our Exporting and Importing guide for more details.
- Upgrades are done as needed (approximately once per year) to implement new versions and obtain new features/enhancements or fixes.
    - During an upgrade to a new version, backups/exports do not need to be made unless a refresh is also planned for the same date (typically these will not coincide).
    - When upgrades occur, the DEV environment will typically be upgraded first, followed by STG and then TST/PRD.
    - During each environment's upgrade, there will be some downtime. The length of the downtime will vary depending on whether the upgrade is a minor dot release or a major version upgrade, but will not be more than one day.
    - During upgrade testing, you'll need to use the provided client links to access the new version while keeping your existing clients installed for access to the environments that are not upgraded.

- Departments will be asked to test in the new version to ensure that all critical functionality continues to behave as expected and any necessary adjustments can be made in advance of the production upgrade.
- Upgrade testing results and progress is collected using a WorkView application.
- More details about each upgrade are available on our OnBase Upgrade Information page.
- After each upgrade is complete in PRD, you'll need to install new versions of the administrative clients (Configuration, Thick Client, Studio). The web client does not require any updates. Users will need to accept a prompt that will appear the first time they access the Unity client after an upgrade.
- Release notes describing changes for each version may be available through Community in the Diamond Delta reports.

System Monitoring Application

- Items you configure or which belong to your department will be assigned to you in a WorkView application that monitors for issues in configuration or processing. If you feel any assignments are incorrect, contact the UIS team.
- You will receive a daily summary of open issues, resolved issues and new responsibilities each day. Any urgent issues will be alerted as they arise.
- System Monitor app usage
  - You can view what's assigned to you using the links in the notifications or through the WorkView interface in the web or Unity client. Opening the objects will provide more information.
  - Certain types of issues will require manually marking the object as resolved; this will be indicated in the summary. Open the object, choose Resolved as the status, then save.
  - If objects are marked resolved but the conditions that caused the issue still exist, a new issue will be created.
  - If you have questions or concerns about an issue, contact the UIS team.

Testing

- Certified admins are expected to test prior to upgrades. A test plan and upgraded versions of the clients will be provided for each upgrade. Upgrade testing results and progress is collected using a WorkView application.
- Testing of changes and new development items (ex. document type, Unity form and workflow configuration) should be completed only in the TST and STG environments, then migrated to PRD.

- See Workflow Notifications below for more information about testing notifications.
- If you need to test functionality using another user's account, you will need to use an SSO-disabled version of the Unity client or web client (available in the UIS OnBase SharePoint page).
    - The "SSO Disabled" links should only be used if necessary.
    - Reset the password on the user account to one you know and use the OnBase credentials to log in.
    - You can also temporarily create a user account in non-production and copy the user groups from an existing user in order to not affect their ability to use non-production clients. If creating a temporary test account, follow normal naming conventions and indicate your ownership of the account through the Real Name description and/or email address.
- Testing tools/resources:
    - Unity form Test Drive
    - Item Generator
    - WorkView Data Import (can create data with mockaroo.com)
    - Improving User Experience Through Solution Testing
    - Creating & Executing a Test Plan

OnBase Clients - Functional Comparison

There are six client applications you will use to administer, monitor, develop and process solutions in OnBase. Most end users only need to know about two of these (Web and Unity), but a Certified Admin/workflow developer needs to understand how and when to use all six.

1. OnBase Configuration: Used by admins to create all base configurations. Diskgroups, Keywords, Document Types, Document Type Groups, Custom Queries, Scan Queues, DIP, DRIP, Users, User Groups. Also used for Configuration Migrations (Change Management) between environments for certain configuration items.

2. OnBase Client (aka Thick Client): Used for administrative and processing tasks. DIP/DRIP/COLD, Advanced Capture configuration, Workstation Registration, Lock Administration, Folder Maintenance, and Document Maintenance. The Thick client can also be used as a windows service for bulk importing of content.

3. OnBase Studio: Used by admins to create Workflow Life Cycles, Notifications, System Tasks, WorkView applications, Unity Scripts, Capture processes. Can also be used for Configuration Migrations (Change Management) between environments for certain configuration items.

4. Unity Management Console: Used by admins to configure and manage timers (for workflow, scheduled reporting, scheduled Unity scripts, etc.).

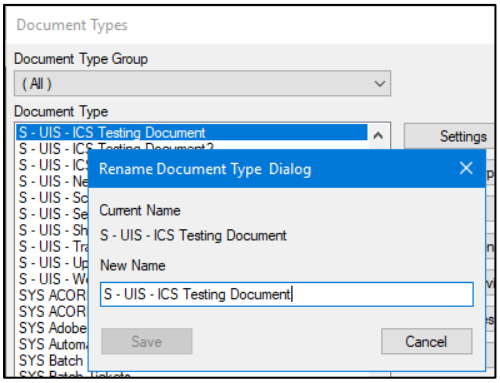
5. Unity Client: OnBase Windows desktop client, utilized by end users. Used for retrieval and processing of content. Light system admin tasks such as user administration and lock management can be done here as well. Unity forms and Reporting Dashboards/Data Providers are configured in the Unity client.

6. Web Client: OnBase web client, utilized by end users. Used for retrieval and processing of content. Light sys admin tasks such as User and User Groups can be managed here as well. The web client can be accessed:
    - Directly (by URL)
    - Using related content
    - Through the campus portals. The OnBase DM tile will appear for all portal users regardless of whether they have an OnBase account. If they do not already have an account, one will be created when they log on using this method (with only functional level 1 permission).

Configuration

- All configuration items in OnBase must follow the OnBase Naming Conventions.
- Always add the "MANAGER" group to all configurations (Document types, Life Cycles, Scan Queues, etc.). This is necessary as the service accounts that conduct the backend processing reside in the MANAGER group and will need access to the configuration to function properly.
- The following types of items CANNOT be deleted when created, so use caution with their creation.
    - Auto-Fill Keyword Sets (AFKS)
    - Custom Queries
    - Keyword Type Groups
    - Cascading Data Sets
    - Note Types
    - Records Management configurations (Retention Plan Sets, Retention Plans, Retention Hold Sets, Retention Event Sets)
    - Unity Scripts of the type "IClientScript" or used by Unity form custom actions
- The following configuration changes CANNOT be undone, so use caution when making any modification.
    - Converting a keyword group to a Multi-Instance Keyword Group (MIKG).
    - Changing the Unity Form's integration token value. NEVER do this for existing integrations as that will break all forms using that integration.

- The following changes CANNOT be made without breaking things:
    - Unity form integration tokens
- If something is created with the wrong name, rather than create a new item, most things can be renamed by double clicking the item in the list.



- If a configuration item is no longer needed and is not listed above as something that cannot be deleted, but you are not able to delete it, please contact UIS for assistance.

Tips:

- If using the Configuration client for any length of time, you may want to re-launch it periodically to make sure you are seeing the most up-to-date configuration from the database.

Reset Cache/Recycle App Pool

- **PRD: Reset Cache should not be used in the production environment unless for emergencies.**
    - Cache resets in production should be avoided altogether (ideally) or at least executed off-hours whenever possible.
        - Please keep in mind that even outside of regular business hours, processing is still happening (ex. Workflow timers, scheduled imports, integrations) and can be disrupted by repeated/extra cache resets.
    - If you require a production cache reset (in the event of an **emergency/extenuating circumstance**, where something is **broken**), please email the Document Management Project Team Certified Administrators, and give a lead time of at least 30 minutes if possible.
    - Cache resets have a global effect and can adversely affect processing system-wide causing:
        - Users will be accessing varied configuration versions depending on when they logged in.

        - Increased memory and storage usage on application server
    - Please set the expectation with your users that production configuration changes will take effect the following day. Migrating changes at the end of the business day can minimize any negative impacts/user disruptions.
- **Non-production (STG/TST/DEV):**
    - In non-production, cache resets can be performed as needed.
    - No notification to the admin group is necessary.
    - Please wait at least 5 minutes between cache resets at a minimum.
    - Check the dashboard (details below) to determine if a reset is necessary. If a reset has been performed since you saved your changes, another reset is not necessary. Cache resets are system-wide for the entire environment.
- Cache resets can be done in Studio (Reset Server Cache on Home tab) or Configuration (Utils > Service Monitoring). All cache resets are logged and these logs are reviewed by the UIS team.
    - Before resetting cache, check the App Server Cache Reset reporting dashboard to see the last time it was reset; it may not be necessary for you to reset it.
    - Do not reset the cache while a configuration import (migration) is in progress.
    - Dashboard is available in Unity and Web clients in all environments
    - OnBase App Server Cache Resets TST
    - OnBase App Server Cache Resets STG
- In Configuration, do not check the box marked “Prompt to Reset Cache on Configuration Exit.” This is a global setting and will apply to all users in Configuration.
- Some configuration changes (ex. user group membership changes, keyword data set updates, changes to formatted workflow notifications, revisions to Unity form templates) do NOT require a cache reset to take effect (but may still require logout/login).
- **App pools are recycled in all environments between approximately 4:00-4:30 am each morning**. An app pool recycle performs the same function as an app server cache reset but is a more extensive reset.
- ~~Watch this video for more information on Cache Resets, IIS Resets and App Pool Recycling~~

Migration (Import/Export)

In addition to the applicable MRGs (Change Control), **critical information regarding migration is included in the Exporting and Importing Configurations guide which you must remain familiar with.**

While other department’s configuration items may be identified in the export process, be sure to **only create or modify your department’s items** in the destination environment when performing your input. If necessary, you can resolve other items as “no action” or “map”. Do

not “create” or “replace” other department’s items. Make sure you review the resolutions assigned for “**all items**” and not just “user exported items” to ensure you are not having an impact on other departments’ configuration.

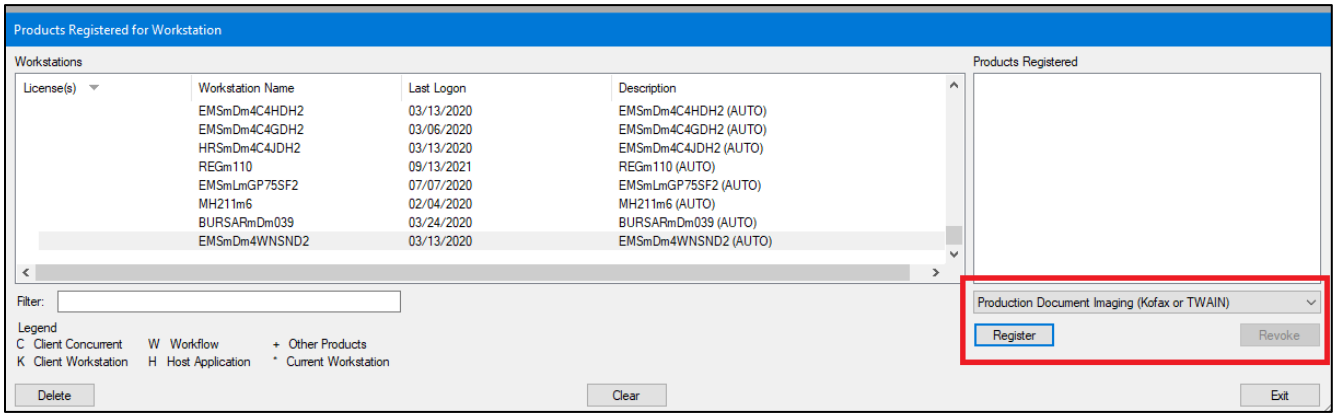
Once you’ve completed your import, there are a few items that will have to be manually configured or checked as they cannot be migrated or may not migrate correctly. Check the Exporting and Importing Configurations guide for details.

In Studio, items that are password protected cannot be exported or replaced. The password protection will need to be removed prior to migration. Items will need to be checked in before they can be replaced in the destination environment.

There are special considerations for migrating projects involving WorkView, especially the reporting elements. The Exporting and Importing guide has further details.

Licenses

- Certain functionality requires the use of a license.
- Refer to Modules we own for a list of product licenses available to CU.
- Some licenses, such as DIP and DRIP, are limited in quantity, so please contact UIS before assigning them.
- In order to use batch scanning, a Production Document Imaging license is required. Admins can use the steps outlined in the scanning guide or assign licenses through the Thick client.



  - Only workstations that have been used to log in to OnBase before will appear in the list.
  - You will need to know the computer name.
  - Choose the license type from the list and use the Register button to add it to the list.

Disk Groups

- New Disk Groups are created by UIS for each new customer/department.
- Certified admins must request new disk groups from UIS as needed.

Keyword Types

- The **Campus Code** keyword type is **REQUIRED** on **ALL** Document Types and all documents must have a value for this keyword. This keyword has a number of uses but it is required for accounting purposes in the system.
    - Set the Campus Code keyword type to “required” for new documents on all document types.
    - The Campus Code keyword type should be configured with a default value for each document type whenever possible so that users do not have to enter a value.
    - For documents that are created as Unity forms, ensure the Campus Code keyword is configured as a form field that will store to the keyword value. Set a default value whenever possible. This can be a hidden/read-only field if desired.
        - For attachments to Unity forms, ensure the field is configured for the primary form and that the attachment will inherit this value.
    - For documents that are created from workflow notifications, ensure the Campus Code value is inherited from the primary item upon creation.
    - For documents that are created from a WorkView object, be sure to include the Campus Code among the Class’s attributes, and make sure it is mapped to the document type(s) in the defined keyword map.
- **Always review existing keyword types** to see if one that would meet your needs already exists before creating a new one.
    - For example, instead of creating *X - ABC - Begin Date*, use the existing *Date Start* keyword type.
    - You can reference Keyword Types in Configuration or use the *OnBase Keyword Type List* reporting dashboard to review existing keyword types.
        - On the dashboard, you can filter by data type, sort by length, etc. in order to determine if a new keyword type is necessary.
    - If there is an existing keyword type that is close to meeting your need, you may be able to modify it. For example, if an existing keyword type can contain 50 alphanumeric characters but you need to have 60 characters, you can increase the length of the keyword type rather than creating a new one.
        - Never change configuration for a keyword type with a number of 100 or less. These are default system keyword types that should not be changed.

        - Please check with other administrators who have document types using a keyword type before making significant changes.
        - From Keyword Type configuration, click the Document Types button to see a list of document types, or reference the reporting dashboard *OnBase Keyword Types & Options per Document Type* and filter by the desired keyword type.
        - If you'll be using the keyword on the form, a different label can be made visible to users of the form rather than the actual keyword type name. This broadens the available set of keywords that already exist that you may be able to use if the label is different.
    - If you need to use a department-specific data set, create a department-specific keyword type. Otherwise, it can likely be a general keyword type.
    - If you are creating a general keyword type that may be useful to other departments, do not prefix it with your campus/department. If creating a new department-specific keyword type, it must follow the OnBase Naming Conventions.
    - Choose an appropriate data type for your keyword.
        - In most cases, alphanumeric should be used. The length can be increased later but cannot be decreased later.
        - Numeric should only be used if you will need to use the value to perform calculations.
        - If you change the data type of a keyword (which is only possible in limited circumstances) any Unity form fields using that keyword type will also need to be updated after a cache reset.
- Don't remove Keyword Types from existing Document Types as you're effectively removing all keyword data from existing documents.
- Do not configure Security Keywords for users or user groups without consultation with UIS.

Tips:

- Keyword options can be used to make keyword types hidden and/or read only or given a default value.
- Refer to the **OnBase Keyword Type List** and **OnBase Keyword Types & Options per Document Type** reporting dashboards for easy access to configuration information.
- Some helpful Hyland trainings:
    - Keywords: Introduction (2 hours 18 minutes)
    - Keyword Best Practices (22 minutes)

Keyword Type Groups

- Do not create Autofill Keyword Sets (AFKS), Keyword Type Groups or Cascading Data Sets without consulting with UIS. Extra planning should be done before configuration as they cannot be removed and modifications are very limited once created.
- Do not remove Keyword Type Groups from existing Document Types as you're effectively removing all keyword data from existing documents.
- Multi-Instance keyword groups (MIKG) allow multiple records to be added to documents.
    - Conversion of a keyword type group to a multi-instance keyword type group cannot be undone.
    - Some Keyword Type modification is limited once a keyword type is assigned to a MIKG, so be sure to carefully plan and test in a non-production environment.

Tips:

- Use the existing Keyword Type Groups (instead of individual Keyword Types) on your Document Types when possible. This optimizes the storage of values in the database for better performance.
    - Refer to the OnBase Keyword Type Groups reporting dashboard for information about configured keyword type groups.
    - **X - HCM - Basic Employee Info** should generally be used for employee content.
    - **X - ICS - Basic Student Info** should generally be used for student content.
- Use the auto-fill keyword set that corresponds to the keyword type group (or keywords) assigned to the document type.
    - **X - HCM - Basic Employee Info AFKS** should generally be used for employee content.
    - **X - ICS - Basic Student Info AFKS** should generally be used for student content. **X - ICS - Basic Student Info AFKS (mod keywords)** can also be used when necessary if the First and Last name keywords refer to someone other than the student, such as staff.
- Refer to the **OnBase Keyword Type Groups** reporting dashboard for easy access to configuration information.

Auto-Fill Keyword Sets

Auto-Fill Keyword Sets are updated in production with new information from ICS/HCM on the following schedule. Some of these processes update keyword values on existing documents; some do not. This is indicated in the chart below.

AFKS Name	Schedule	Updates Existing Documents?
X - HCM - Basic Employee Info AFKS	Full update weekdays at 8:00pm	Yes
X - HCM - Position Description AFKS	Full update weekdays at 7:00pm	No
X - ICS - Basic Student Info AFKS	Data updates for name changes/new names every 10 minutes*, *Daily 6:00am-10:00pm*	No
	DOB updates* *Sunday-Friday at 10:30pm*	Yes
	Name updates* *Sunday-Friday at 11:00pm*	Yes
X - InfoEd - PT - Document Data AFKS	Interval – Data updates every 30 mins *M-F 7:15am – 5:15pm*	Yes
	Full – Data updates *M-F 5:30pm*	Yes
A - OGC - FIN Proposal-Award AFKS	Full – Data Updates *M-F 5:20pm*	No

*Relies on new effective dated row

Additional information on AFKS and AFKS import process scheduling is available through Reporting Dashboards.

Document Types and Document Type Groups

- All Document Types and Document Type Groups must follow the OnBase Naming Conventions.
- All Document Types must have the Campus Code keyword assigned. The Campus Code keyword should be marked as required for new documents and have a default value configured.
- When creating Document Type Groups - always select “Search Group Enabled” to allow search at the Document Types Group level.
- User groups should be assigned to any document type groups containing document types they have access to. Otherwise, users cannot filter the list of document types based on document type group.

Tips:

- To save time when creating new Document Types, check for existing Document Types that have the same Document Type Group, Keyword Types and User Groups, then just use the “Copy” button to create the new document type from that matching document type and make the necessary revisions.

- Refer to the OnBase Doctypes reporting dashboard for easy access to configuration information.
- Hyland's premium subscription includes a hands-on lab for Auto-Name Strings and a hands-on lab for Cross References which can be used on document types.

File Types & Formats

- Document types are configured with a default File Format:
    - When creating Document Types that do not use a form template, always use "Image File Format" as the default file format unless you have a very specific reason not to.
    - Set the default file type for all document types that do have Unity form templates to "Unity Form" unless the document type is associated with a Lifecycle using a notification that sends the Unity form as a PDF attachment (see below for more details). By default, Unity forms attached to notifications will be sent as images.
    - If the system does not recognize the file format of an incoming document, the default file format is used, so in that case the default file format should be the most commonly-used file format for the document type.
        - This means that attachments to Unity forms that do not have a file extension will be treated as Unity forms if they are imported to a document type with a default file format of Unity form. These documents cannot be rendered by the client. So it is recommended that you use a separate document type for the attachments (the document type can be changed in workflow post-submission if needed).
    - When opening a document that has one or more renditions, the rendition using the document type's default file format is displayed if it exists. This also applies when emailing a document as an attachment (such as an attachment to a workflow notification).
        - When you convert an Image to a PDF and want to email the PDF rendition of the document, you need to ensure that the default file format is PDF, otherwise the Image rendition will be attached to the email instead.
        - Hyland added functionality that automatically generates an image rendition of a Unity Form if you attach it to an email.
    - Unity forms are not processed by full text search unless the default file type for the document type is Unity form.
    - When using System Events with an OnSave event for Unity forms, the document type needs to have a default file format of Unity Form.

    - If you would like all PDFs for the specified Document Type to be displayed as images in the system, you should select Image Rendered PDF as the default file format instead of PDF. To force the system to use the default file format in this scenario, select the Respect Custom File Types Document Type setting.
    - For the Create E-Form workflow action, the document type for the specified form type must have a default file format of Electronic Form or Virtual Electronic Form.
    - For DIP, the “move to processed folder” option only affects files that match the document type’s default file format. If you are importing files of a file format that is different from the document type's default file format, you must include the >>File Type default keyword type in the import index file. If the >>File Type default keyword type is not added, you are unable to view your imported documents.
- **Do not use File Type Whitelisting** on Document Types at this time.
    - This is a new feature in EP3 that has negative impacts on re-indexing existing documents.
    - This also does not really address limiting the file types that can be submitted as attachments to Unity forms, since the user doesn’t have an opportunity to correct their attachment (the form will be submitted without any invalid attachments, even if that means no attachments are saved - even if they are marked required).
    - The import dialog in the clients also allows for a different file type to be selected to bypass the whitelisting, which results in content that is not viewable.
- More information on file formats is available in the System Administration MRG (System Administration: File Formats).
- Audio and video files can be stored in OnBase (import file size limits still apply, 300 MB for the Unity client and 100 MB for the web client). Supported file types vary by client:

File Format	Unity Client	Web Client
Video		
.avi	X	
.m4v		
.mov	X	
.mp4	X	X
.mpg	X	
.mts		
.wmv	X	
Audio		
.mp3	X	X
.wav	X	X

Renditions, Revisions and Versions

Document types can have functionality enabled to allow renditions, revisions and/or versions. Each term represents a different concept though the terminology is similar.

- **Renditions** refer to the same content presented in different file formats. For example, there may be both an image rendition and a PDF rendition of the same document.
- **Revisions** refer to changes made to the content of a document. Revisions use the same file format as the original document. The most recent revision will be displayed by default, but users (with sufficient privileges) can view prior revisions and for Word documents can compare between them.
- **Versions** represent "final" revisions of a document. If users are making changes to a policy that undergo review by an approver, the approver can specify one revision as the current version that will be presented in retrieval.

For each of these features, options are available to require users to comment on changes that are made, to allow appending pages to existing documents, to prompt for saving as a revision vs. a new document, etc.

User interaction with these features will also depend on their access level (a view-only user will not be able to create/view revisions for example).

More information on configuring document types to use renditions, revisions and versions is available in the System Admin MRG and the EDM Services MRG. The settings are managed in Configuration.

A reporting dashboard is available in the Configuration category for OnBase Document Type Revision/Rendition Settings.

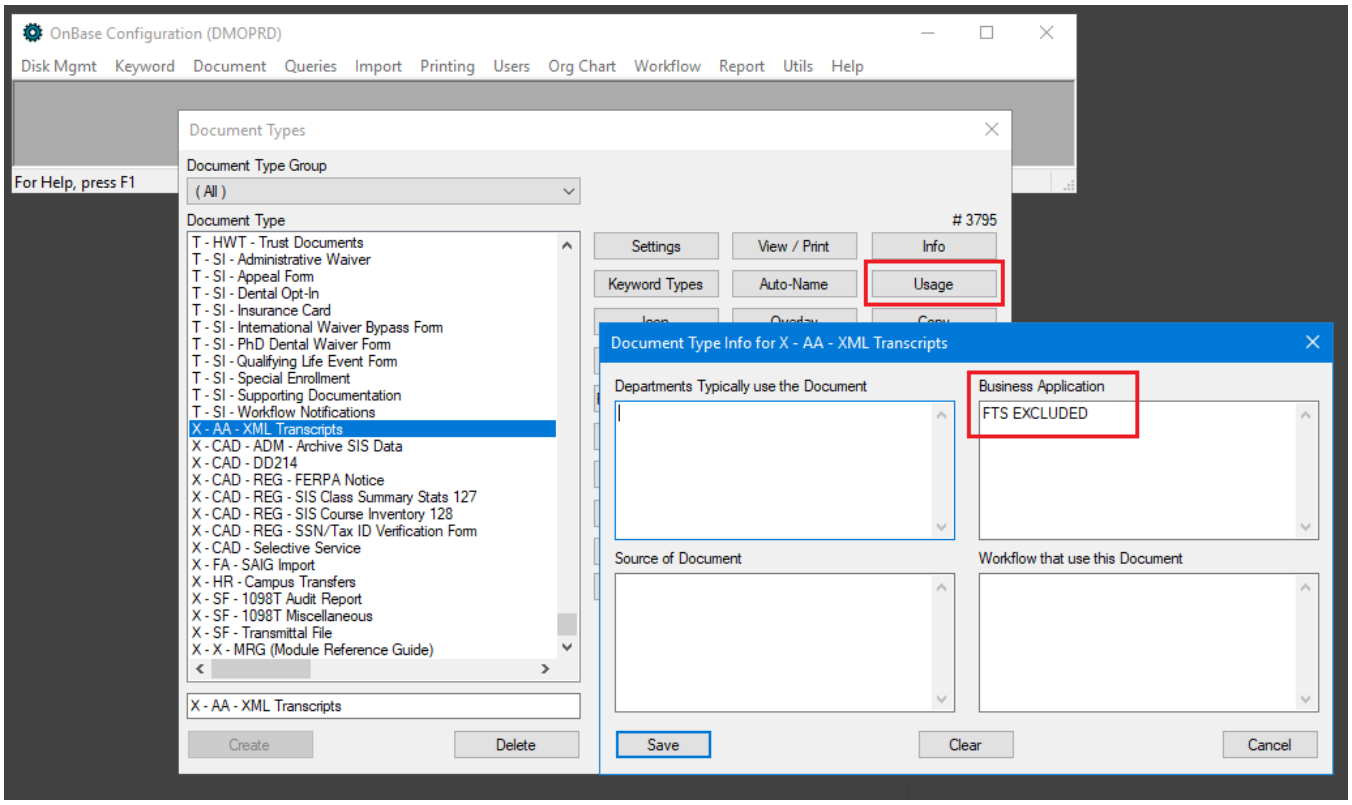
Full Text Search

To have full-text OCR performed on a document type in order for it to be full-text searchable, contact UIS_DM_Support@cu.edu. Please provide the document type name.

The document type(s) will be added to the full-text catalog for your department. Depending on the quantity of content, it may take several days for the OCR to be complete.

A list of document types configured for Full-Text OCR, along with notice of any pending/failed items, is available in the *OnBase Full-Text OCR (FTS)* Reporting Dashboard.

If any document types should be excluded from FTS, please indicate this by entering “FTS EXCLUDED” in the Business Application field of the document type Usage in Configuration (in addition to any other information you have entered there).



Document types should be excluded if they contain “temporary” content that will not exist in the document type long term, or if issues arise for any reason.

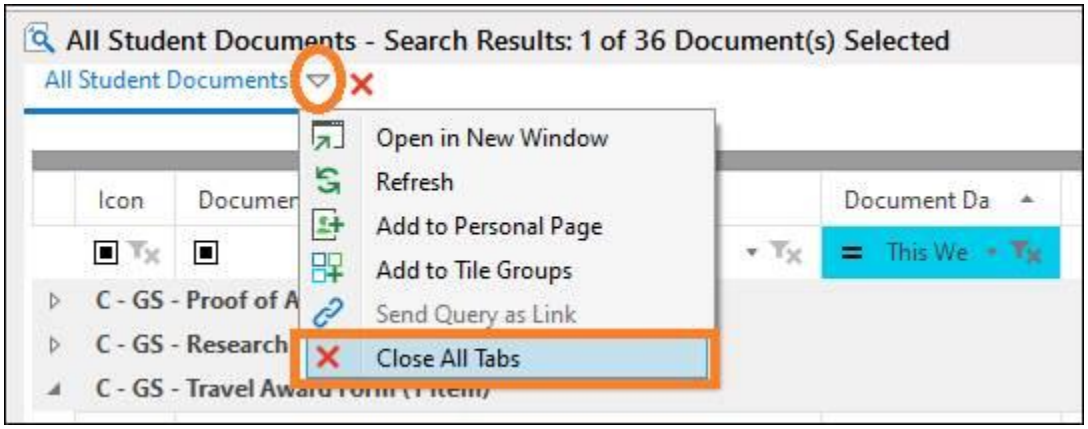
Note that to use full text search to find content within Unity form documents, the default file format for the document type must be “Unity Form”. See the Default File Format section above for additional considerations.

Custom Queries

- New custom queries must follow the OnBase Naming Conventions.
- If a Custom Query using SQL is needed, consult with UIS for assistance.

Tips:

- Custom Queries have more options for configuring columns for keyword and metadata values compared with Document Retrieval. Additional sorting, grouping and filtering options are available.
- Custom Queries can be deleted by UIS if needed.
- Custom Queries can be used as a Workflow filters too! More information is available in the Workflow - Setting up Inbox Filters guide.
- Reference the **OnBase Custom Query Configuration** reporting dashboard for details on existing custom queries.
- In the Unity client, you can have multiple results tabs open at once. Click the arrow on a tab to see more options, including Close All Tabs.



- Some helpful Hyland trainings:
  - Custom Queries: Hands-On Lab
  - Custom Queries: Introduction to Custom Queries

Scan Queues

- All Scan Queues must follow the OnBase Naming Conventions.
- **Always** have a value (50-100) in the "Override Maximum Uncommitted Batches" setting on each scan queue (bottom right corner of Process Options).
  - This setting overrides the global setting for maximum number of batches system-wide.
  - If there is no value set for the scan queue (or the value is 0), once the maximum number of system-wide uncommitted batches is reached no batches can be added to your scan queue.
  - More information on Override Maximum Uncommitted Batches setting
  - Do **not** change the system wide maximum uncommitted batches setting.

- If using a CPD (Capture Process Designer) scan queue, note that checking that process out to make modifications while it's being used can result in unexpected behavior.

Tips:

- Create at least two Scan Queues to start with, one with Interactive Data Capture (IDC) on, one with IDC off. That gives your scanners and indexers a choice on which to use.
- Reference the *OnBase Scan Queues and Document Types* reporting dashboard to ensure all document types are assigned to a scan queue if users will need to scan to create documents in that document type.
- Whenever possible, the disk group used for a scan queue should be the same disk group used for the document types associated with the scan queue.

Scan Formats

- Do not create Global Scan Formats, these are disruptive as they will not apply to everyone and can cause confusion and create bad scanned batches as well. If you need to have the same Scan Formats on multiple machines, exporting and importing is the correct way to do so.

Tips:

- If you are getting errors for your TWAIN scanner (specifically page jam errors) from the Unity Client, you may need to change the TWAIN transfer mode from "Buffered" to "Direct."
- Upgrades may require scan formats to be reconfigured. Export your scan formats prior to an upgrade to make this easier (they can be imported again after the upgrade).

Import Processes

- Certain license types are limited, please check with UIS.
- Please make sure all batches are committed in a timely fashion. Documents in uncommitted batches:
    - Will not be added to workflow life cycles associated with their document type
    - Can be deleted by users with the "delete uncommitted only" privilege
- Purging a batch purges all the documents within the batch, so only do so when absolutely necessary and after determining any effects of the action.

Security - General

- At CU, Functional Security (what functionality users have access to and what actions they can perform on content they have access to) is only applied to the specific

"Functional" user groups (see below) in our environment. **Do not apply "Privileges" or "Product Rights" to any other user groups or change the existing Functional groups.**

- **All user groups in all environments** are audited and validated for system compliance.
- **Do not add yourself or others to any of the following user groups. UIS will be notified and you/they will be removed. Accounts given unauthorized access may be locked.**
    - **MANAGER**
    - **Functional - Admin - System (Certified Only)**
        - UIS will provision this user group after successful completion of training and submission of the Administrator Agreement.
    - **Functional - Developer - Unity Scripts (Certified Only)**
        - UIS will provision this user group after successful completion of training and submission of the Script Developer Agreement.
    - **Functional - Developer - Unity Administrator (UIS Only)**
    - **Functional - Admin - IDP Administration (UIS Only)**
- Do not configure Security Keywords for users or user groups without consultation with UIS.

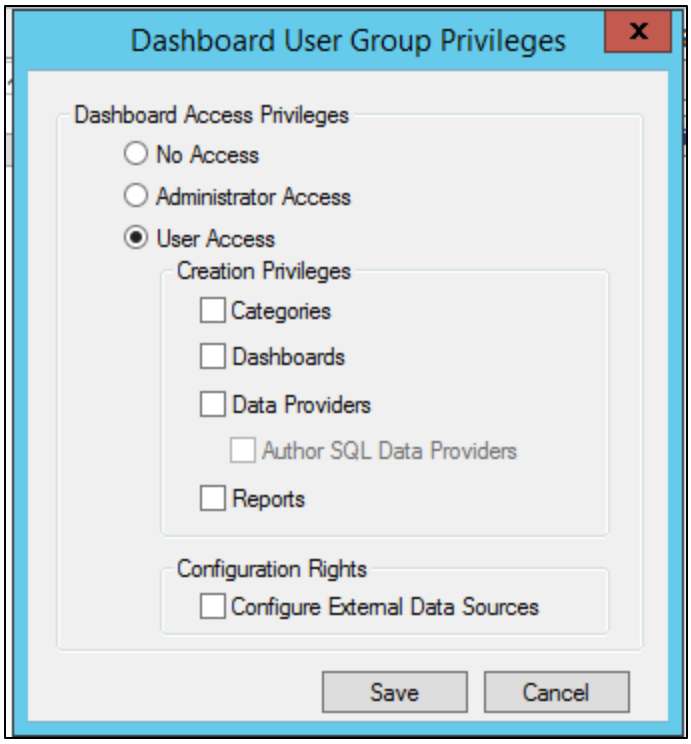
Tips:

- Use the "Copy" button to easily copy most user group configuration. This does not copy the members of the group but gives you an option for which other aspects of the group should be copied.
- A form template, *S - UIS - Group Membership Copy Form*, exists to assist with copying users between user groups. The form uses a Unity script that will make the updates to user group membership. The form does not need to be submitted in order to perform the updates.
- Refer to the *OnBase Users & Groups* reporting dashboards for easy access to configuration information. See Administrative Dashboards for descriptions of available dashboards (requires campus network/VPN connection).

Security - User Groups

- All user groups must follow the OnBase Naming Conventions.
- All user groups in all environments must match one of these types, with naming and usage following that type:
    - **Functional**: Used to assign Functional Permissions. Every user should be in exactly one of the four functional level (1-4) groups.

        - DO NOT CREATE NEW FUNCTIONAL GROUPS OR MODIFY ANY OF THE EXISTING FUNCTIONAL GROUPS, THESE ARE AUDITED FOR CHANGES.
        - Functional groups:
            - Allow users to access OnBase. Without at least one functional level group (1-4), users cannot log in.
            - Determine how users can interact with the content they have access to through their other user groups
            - Grant extra administrative privileges (ex. Workflow development) to the appropriate users.
            - **Should not be used to assign any access to content or departmental configuration** (ex. document types, workflow life cycles/queues/tasks, etc.).
        - Refer to the Functional Security Group Definitions and the System Admin MRG for more details about what each functional group provides
    - **Doc Comp**: Only used for assigning users as administrators for Document Composition templates.
    - **Notification**: Only used to assign users as recipients on workflow notifications when neither a workflow group nor user group has the appropriate users or would provide excess access.
        - Alternatively, you can use roles in Studio, but these are only visible in Studio and can only be managed in Studio.
    - **Personal Page**: Only used to assign Personal Page configuration to users
    - **Reporting**: Only used to assign Reporting Dashboards, Reports and Data Provider access to users.
        - In order to appear in the list of groups available for assignment to dashboards, reports, and data providers, the group will need to have the "User Access" reporting dashboards privilege. This is assigned in Configuration > Users & Groups > User Groups/Rights > select group > Reporting Dashboards.



- No other privileges should be assigned beyond “User Access”. This is monitored and any additional privileges will be removed.
- Reporting configuration (dashboards, reports and data providers) should be assigned using these groups, NOT directly to users.
- More information on access to reporting items is available in our Reporting Dashboards guide.

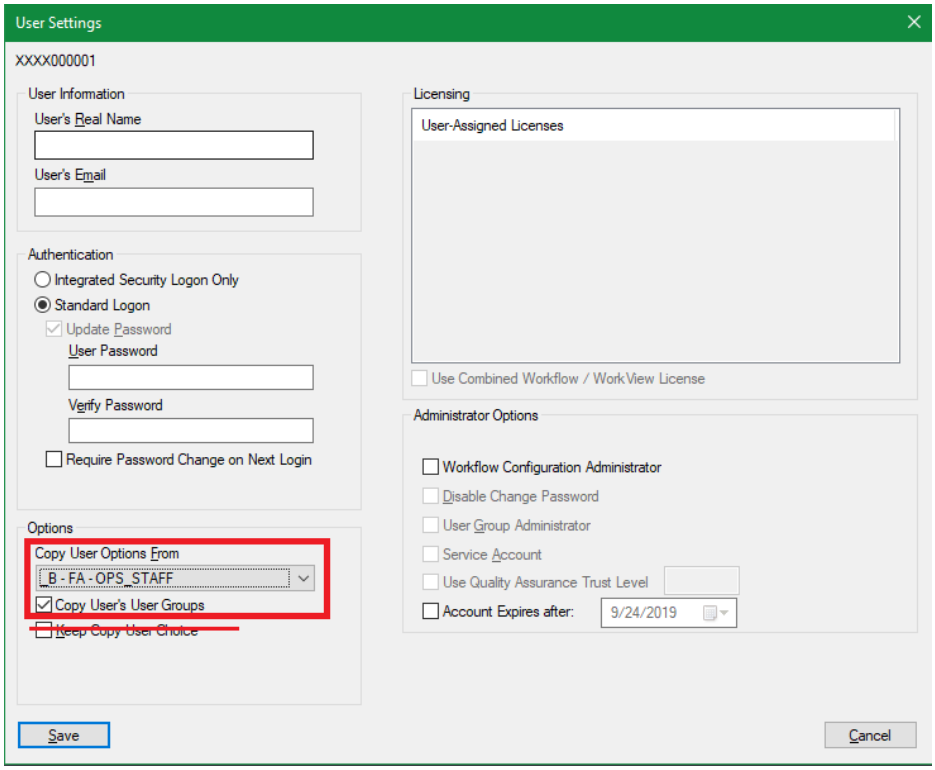
- **Scan Queue**: Only used to assign Scan Queue access to users
- **Security Keyword**: Only used to assign Security Keyword values at the user group level.
  - Do not implement security keywords without consulting with UIS.
- **Unity Script:** Only used to assign users view/modify permission to Unity scripts in Studio.
  - Users will also need to be in the functional group for script development in order to see scripts in Studio.
- **User Group**: Only used to assign Document Type and (non-workflow filter) Custom Query access to users.
  - Can also be used as notification recipients (but no other workflow configuration).
- **Workflow**: Only used to assign Workflow life cycles, queues and tasks to users.
  - Can also be used to assign access to Custom Queries that are designated as “workflow filters” to users.

        - Should **not** be used to grant access to document types or other configuration items. Documents in workflow queues will be accessible to users with access to those queues while the documents are in workflow, *even if the user does not have access to retrieve those document types using retrieval!* If users need access to documents that are not in workflow queues, assign this access using a "User Group" group.
    - **WorkView**: Only used to assign WorkView configuration items (applications, classes, filters, views, etc.).
        - Should not be used to grant access to document types or other types of configuration items.

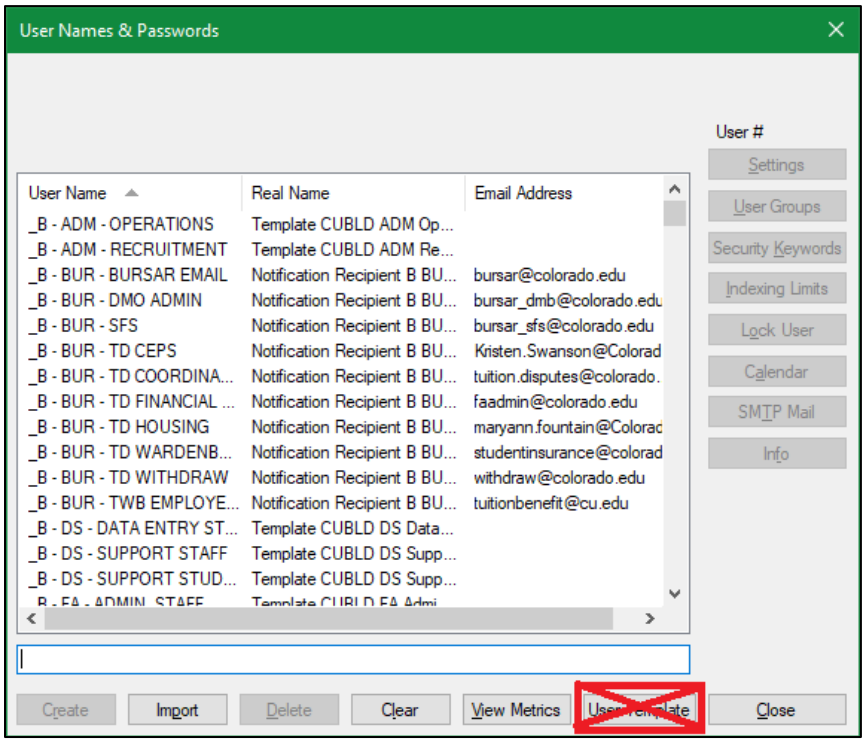
Security - Users

- All Users must follow the OnBase Naming Conventions.
- The OnBase username will be the person's PeopleSoft OperID (aka Operator ID)
    - OperID format is 4 letters followed by 6 numbers.
    - Using the OperID as the username facilitates SSO login methods, so it's important the correct value is used.
    - TIP: If you do not know the Operator ID, use the lookup feature on a document type that uses the basic employee info autofill keyword set to search for this information based on name/employee ID.
- **DO NOT delete user accounts**. If you feel a deletion may be necessary, contact the UIS team to discuss further.
- Creating new users:
    - Username: Operator ID
    - Real Name: First Last – CU[AMC/BLD/DEN/SPG/SYS] Department Description
        - EX: Milo Buffalo – CUSPG ADM Student Assistant
    - Configure the account with 'Integrated Security Logon Only' unless the account holder for some reason needs to sign into one of the non-SSO applications (Thick client, Config, Studio, etc.).
        - If the user will use one of the non-SSO applications, choose 'Standard Login' and set a password. They will need to know the password configured on their account.
    - Users can be created in the following clients:
        - Configuration
        - Unity Client
        - Web Client
- **All users should belong to one functional level group (1-4) and at least one other type of user group that grants access to content.**

- Using SSO, any CU employee/POI with an Operator ID associated with an Employee ID (essentially anyone who can log into the portal) can log into OnBase with their campus credentials, even if they do not have an existing OnBase account.
    - In these cases, an OnBase account will be created for them with only level 1 permissions.
    - Any users created this way will have their name and email information updated at the end of the day.
    - In order to access any content, they will need to be added to other user groups; this will only allow them to log in and create the shell of the account.
- In Configuration, you can copy user groups from one user to another. This can be used in conjunction with a template user or a regular user to make configuring a new user quicker and easier.
    - Select the user to copy from in the Copy User Options From drop down list.
    - Check the box for Copy User's User Groups.
    - Check the Keep Copy User Choice box to save the selected user for any additional users you are creating in your current session.
    - After copying user groups, **check what was added** and cleanup any groups that should not be assigned (ex. anything providing administrative access in OnBase)



- DO NOT use the User Template option. This is a global setting so anyone else creating users and copying user groups will have your selected user populated as the user to copy settings from.



- Terminating access:
  - Remove all user groups.
  - Rename and/or lock the account if desired.
  - If an account is unused for ~2 years, it will be automatically disabled (locked), see below.
  - **Do not delete the account.**
- Lockouts/Disabled accounts
  - Accounts are locked:
    - after 5 failed login attempts
    - after 730 days of inactivity
    - when an administrator manually locks the account
    - when an account is automatically deprovisioned (not associated with an active employment or POI record)
  - Locks from failed logins are released after 15 minutes.
  - If a user cannot log in but has user groups, check if the account is locked (disabled). Account locks can be reviewed and removed using the Configuration client, Unity client or web client.
- If necessary, test accounts can be created **in non-production** so that you can log in and test different user roles/access levels.

- Standard account guidelines (naming conventions) apply. Do not add these to privileged groups.
- You will need to set a password that you know and use non-SSO clients.
- These accounts can be deleted when you are done, or simply locked and cleaned up by the next refresh.

Security - Single Sign On (SSO)

- The web and Unity clients have SSO enabled to allow users to authenticate using their campus credentials.
- OnBase credentials (OperID and OnBase password) will be needed to authenticate to the thick client, Configuration, Studio, and the UMC where SSO is not available.
- If the campus selection window shows just the names of the campuses, click to make a selection. If the campus picture is shown, you need to double click to select.

Tips:

- If the SSO login window for the Unity client appears misaligned, update Internet Explorer compatibility settings as follows:
  - Launch Internet Explorer.
  - Select the **Tools** gear in the top right.
  - Select **Compatibility View settings.**
  - Un-check the box for **Display intranet sites in Compatibility View.**
  - Click **Close**.
- Default IE Security Zone Settings should be used.

Document Maintenance

- Deleted documents are not purged (permanently deleted) and can be retrieved from Document Maintenance if necessary. Documents that are purged (either by purging batches or by the workflow action) cannot be recovered.
- Each department admin is responsible for maintaining their own deleted documents. This should be done regularly (at least monthly) in PRD and TST.
- To access Document Maintenance, log in to the Thick client. Under the **Admin** menu, select **Utilities**, then **Document Maintenance**. Documents can be purged or undeleted by highlighting the desired document(s) and right-clicking.
- Be sure to only purge documents deleted from your document types; **do not select Purge All**.

Tips:

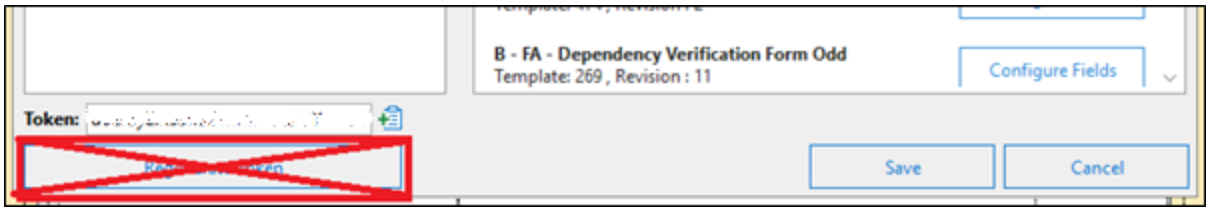
- Document Maintenance can be scheduled in the Thick client for all items in a document type group.
- Deleted documents remain assigned to any workflow queues, so documents that are "undeleted" will reappear in any queues they were in at the time they were deleted. This also means that when deleting queues, you may need to purge or move deleted items that are assigned to the queue (even if the queue appears empty in the client).

Icons

- Custom icons can be added to use for document types, custom queries, Workflow life cycles, queues, tasks, etc.
- For small icons, import to the SYS - System Bitmaps document type. Bitmap icons should be 16x16 pixels with 72 dpi.
- For large icons, import to the SYS - System Icons document type. Icons should be 32x32 pixels.
- File format should be .BMP or .JPG.
    - PNG will not work.
    - For images saved as .BMP set the color mode to Index, as this sets the number of colors to 256 or fewer and keeps the file size as low as possible.
- You can resize images to the correct size using MS Paint.
- Use the same Description keyword value for both versions/sizes.

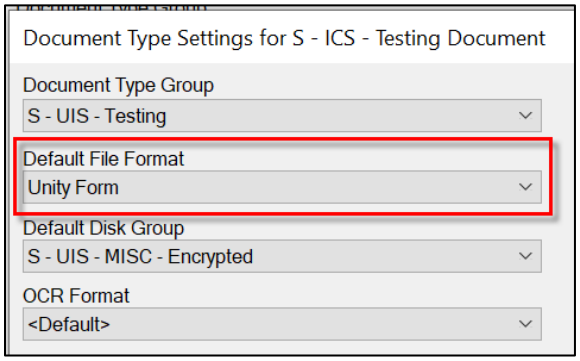
Unity Forms

- **NEVER** change/regenerate the integration token on existing integrations. This will cause all forms using that token to break (all "portalized" links will break).



- Form Visibility determines which users can view and submit each form in the Unity and web clients. The default setting allows form creation by all user groups with access to the form's document type, so modify this if necessary.
- All form templates data sets, themes, etc. must follow the OnBase Naming Conventions.

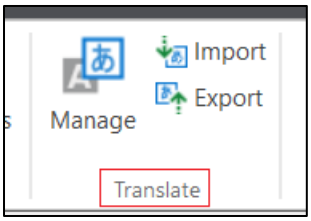
- If creating new Themes for the design of your form, ensure colors are accessible.
- Use caution when opening a form template in a new window in the designer, there is no warning if you open the same template twice. Whatever changes are saved most recently will overwrite changes made in the other window.
- It is not necessary to create copies of templates when making changes, even if they are extensive.
    - You can always revert to a prior version of the template through revision management in the designer. Manage the revisions on one template rather than revisions on several templates.
    - URLs are tied to the template ID, so making copies complicates the management of URLs.
- When creating a form, ensure you change the associated document type's default file format to "Unity Form." See the Default File Format section above for additional considerations.



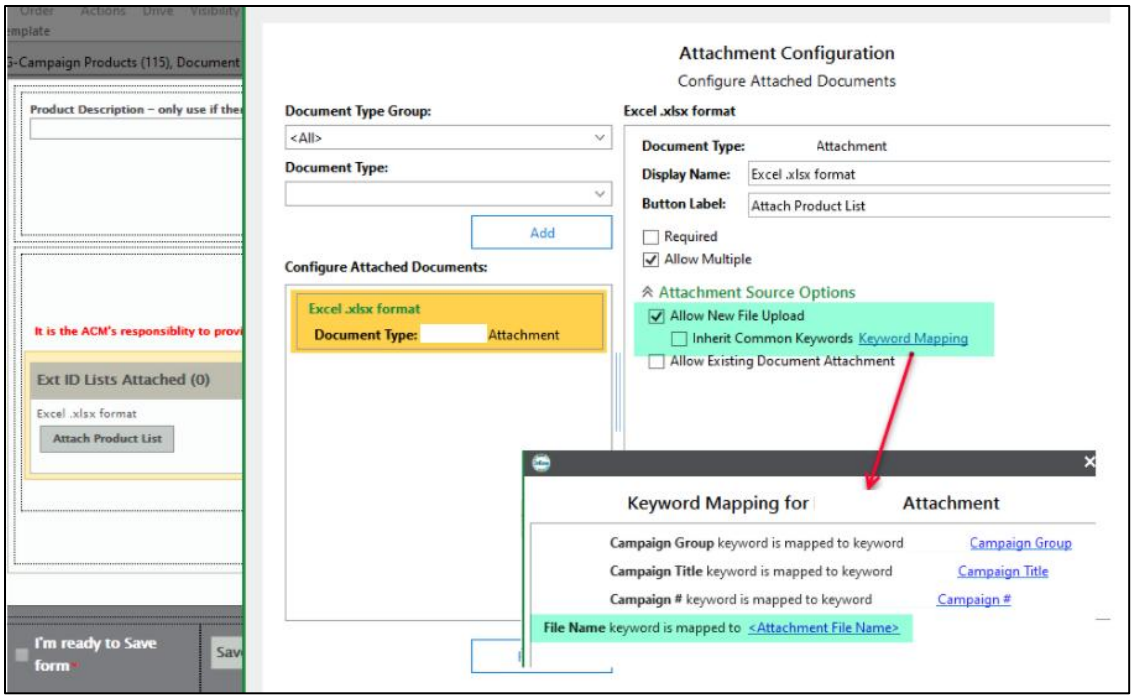
Tips:

- Recommended trainings:
    - Unity Forms End User Hands On Lab (included in premium subscription)
    - Unity Form Design Part 1 (included in premium subscription)
    - Unity Form Design Part 2 (included in premium subscription)
    - Introduction to Unity Form Configuration (included in premium subscription)
    - Unity Forms: Advanced Features (included in premium subscription)
    - OnBase Forms (instructor led)
- Unity Forms can be published to a URL for display from a website or in the portal.
    - Forms in the portal (or using the "portalized" link to require portal authentication) can be pre-filled with the Student ID or Employee ID for verification of identity and data validation.
    - See the *Unity Form – Sharing for Public Use* guides on the OnBase Training page for more information.

    - Shared forms will not be available via URL in non-production unless on a campus network.
- More than one Unity form template can be saved to the same document type. This is not recommended unless the form templates are **very** similar, as having the same document type means they share the same keyword types, user groups, life cycles, etc.
- When creating a new template, you must choose a target of either Document or Workflow.
    - Document: Stored in OnBase as documents.
        - This is the most common option.
    - Workflow: NOT stored in OnBase as a document.
        - Used for data entry in Workflow.
        - Can be used instead of an auto-generated HTML form to improve validation, leverage custom actions, and provide a nicer appearance.
    - More information:
        - MRG section on Form Targets
        - Unity Forms: Advanced Features – Workflow Forms Training Course
- Make sure to update the default ID value for each form element to give it a descriptive name that will make it easy to identify the desired field from a list. This makes it easier to configure custom actions and workflow rules/actions based on form fields.
- Form Revisions
    - Making changes to a Unity form template (saving a new revision) will only affect forms that are submitted after those changes are made.
        - Existing forms will not be affected by changes to a template.
        - You may be able to use workflow to create a new form with the values from an existing form copied over.
        - In new versions of OnBase (EP1+) new functionality exists to convert existing forms to a new template (this will not work for templates that use attachments).
    - When saving a new revision, it is recommended to enter some comments about what was changed. This can make it easier to find the correct revision if you need to restore a prior version of the form.
    - To review a prior revision, select it from the revision list (see: Viewing Revisions). To make it the current revision, publish it again.
- The Export and Import options in the menu ribbon of the form designer are for *translation purposes only*; migration of form templates must be done using Configuration or Studio.



    - This translation option allows you to display translated versions of the same form template to users depending on their locale settings.
    - Section 4 of the Unity Forms Advanced Features Hyland premium subscription course covers translations on forms.
    - To Export/Import (migrate) form template configuration, use Studio or Configuration. Refer to Exporting and Importing Configurations for more details.
- Form elements can be moved between pages (of the same form template) by moving the item into the header, navigating to the other page, then moving the item into the desired location.
- Beginning in 22.1, non-keyword form elements can be copied within a form. Elements can be copied and pasted between form templates as well.
- Custom actions can be temporarily disabled using the checkbox.
    - **NOTE:** If the "reverse on false" option is selected, the custom action may not be fully disabled, so use the enable/disable option with caution and test thoroughly.
- Use the Test Drive feature in the Forms Designer to test your custom actions. You can choose which user group(s) to test as, specify workflow queues, and test as if the form is new/not new. More detail is available in the Execution Log which can help with troubleshooting.
- Use the Item Generator in Studio to create forms for testing. Even if you don't add the items to workflow, you can use them to test your custom actions with a wide variety of values.
- Use the *Copy Property To/From Unity Form Field* workflow action to use non-keyword form fields in workflow processing.
- Attachment keyword mapping:
    - You can store the attachment's original file name in a keyword value by setting the keyword mapping. You'll need to uncheck "inherit common keywords" to provide a custom mapping. Map the keyword type (we recommend the File Name keyword type) to the <Attachment File Name> value.



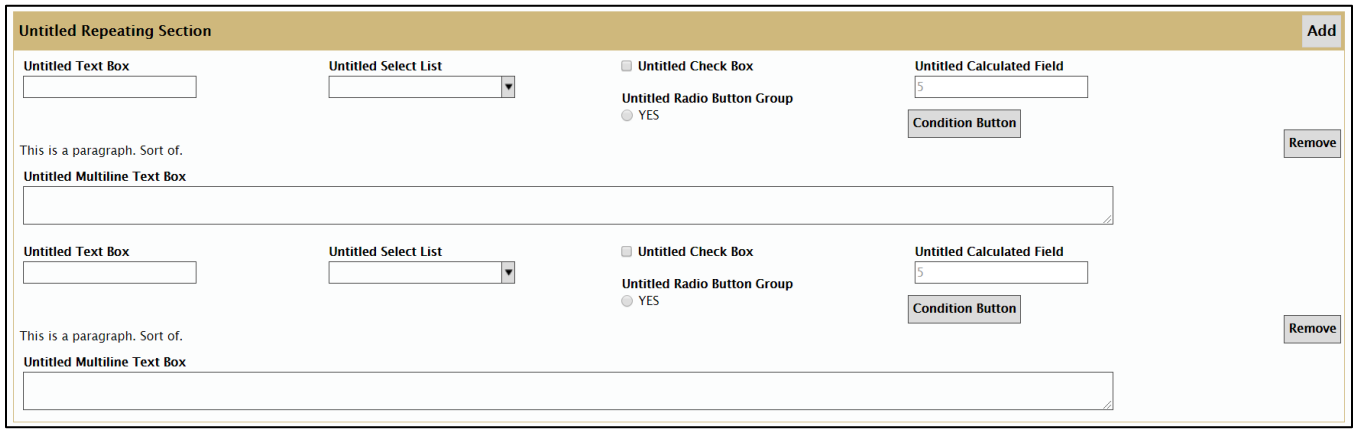
- This can also be done to store the form's document handle to the Document Handle keyword value on the attachments, which makes it easier to identify attachments as related items in Workflow.

- Repeaters/Repeating Sections vs. Tables

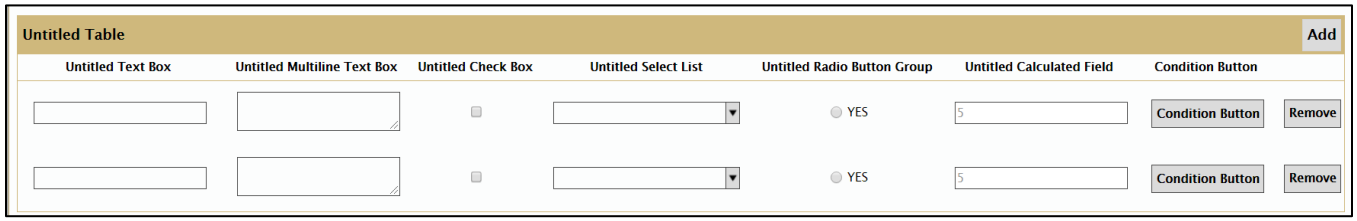
	Repeater/ Repeating Section	**Table**
Can be used with all keyword fields?	YES	YES
Can be used with all non-keyword fields?	YES	YES
Can be used with a mix of keyword and non-keyword fields?	NO	NO
Allowed field/element types	Text boxes Multiline text boxes Check boxes Select Lists Radio Buttons Calculated Fields Condition Buttons Paragraphs Panels Sections Images	Text boxes Multiline text boxes Check boxes Select Lists Radio Buttons Calculated Fields Condition Buttons
Can customize layout with panels?	YES	NO

Labels	On all fields	At top of columns only
Other/Misc.		Fields in a table must be added in the desired order, they cannot be rearranged. Not recommended for more than a handful of columns.

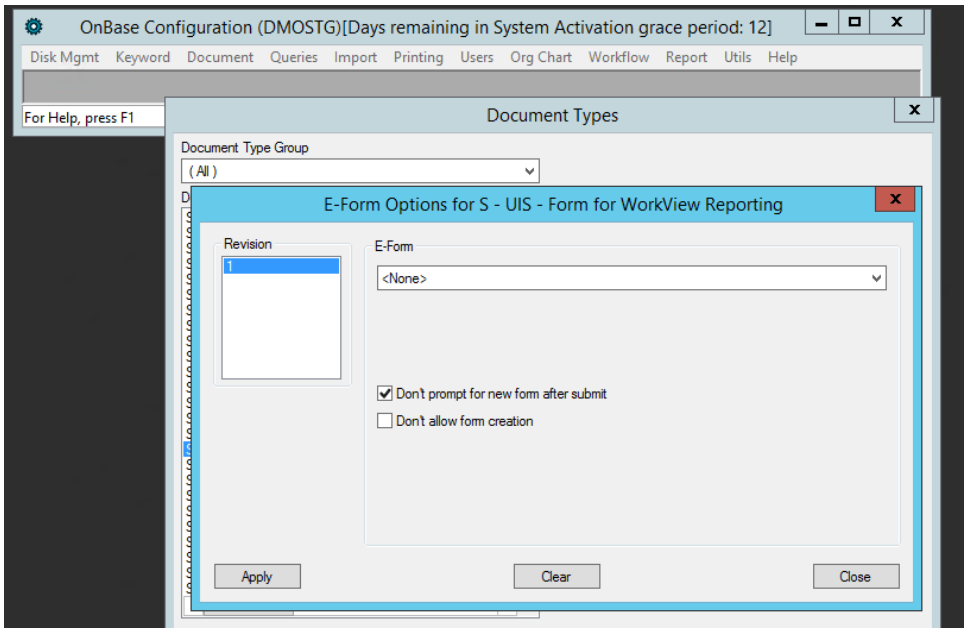
Example - Repeating Section with Two Rows



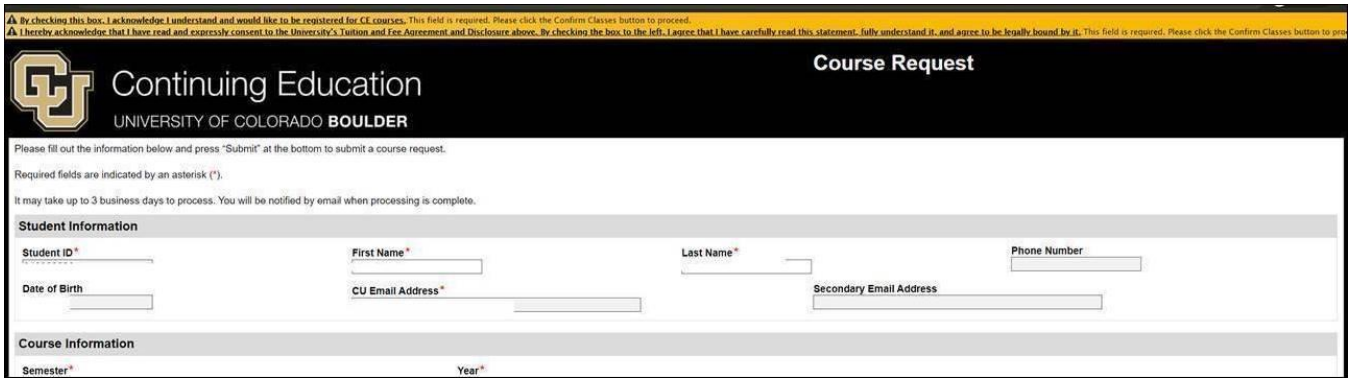
Example - Table with Two Rows



- To disable the “create new form?” prompt after submitting a form in the web/Unity clients, go to the document type in Configuration. Choose E-Form and check the box for “Don’t prompt for new form after submit”.



- A reporting dashboard category is available to administrative users and includes several dashboards that summarize form templates and their document types, custom action information, form field configuration and attachment control configuration.
- New in EP3 - Form Validation Messages:
    - As users try to submit or work through the form, a list of fields needing attention will appear at the top of the window. The underlined portion is a link that, if clicked, will bring the user to that field. This makes it easier for any corrections to be made and improves the accessibility of the information. But it does result in a change in the behavior.

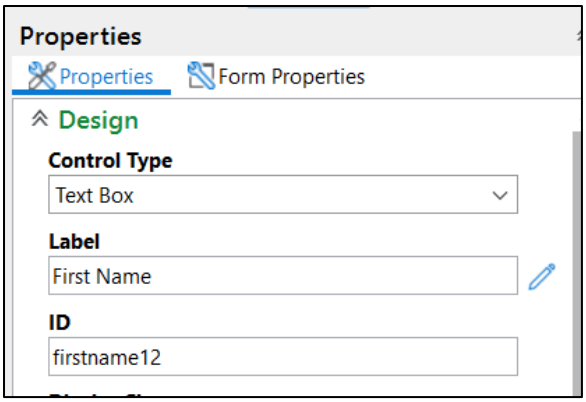


    - The conditions where we know the message will appear are:
        - If the user uses the Submit button and any required fields do not have a value or any fields have values that are invalid (not in required data set, don't meet value constraints, etc.).
        - If a custom action makes a field invalid (Invalidate Field action type)

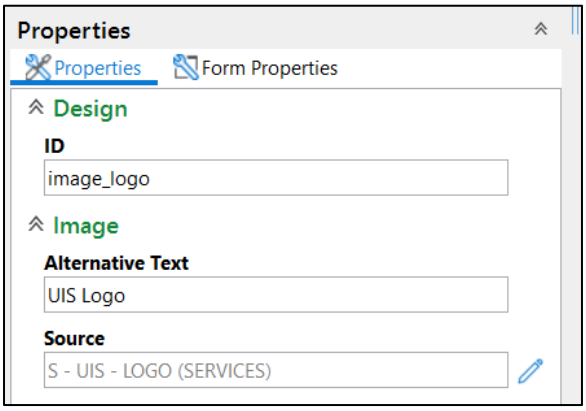
        - If a custom action makes a field required that was previously optional
        - If a custom action clears a field value for a field that is required (Clear Field Value action type)
    - A dashboard has been created to assist in identifying forms using custom actions that could trigger the validation message. This is in the *OnBase Configuration – Unity Forms* category and is called *OnBase Unity Form Validation Message Custom Actions*.
    - If any fields are missing a label, the field ID will be shown in the validation message instead, which could cause some confusion (but ideally all fields would have labels for accessibility purposes).

Form Accessibility/Universal Design

- It is important to make your forms (and any other content) accessible to all users, including users who may use a screen reader or other similar tools. Implementing accessible forms and universal design concepts will improve the experience for all users. We have some recommendations here, but this is not intended to be all-inclusive.
- Web accessibility resources/standards:
    - Hyland Accessibility Resources
    - W3C Web Accessibility Initiative - Accessibility Fundamentals
    - Web Content Accessibility Guidelines (WCAG)
    - Forms Web Accessibility Tutorial
    - WebAIM
    - CU Digital Accessibility webpage
    - Campus Resources:
        - Boulder Digital Accessibility Office
        - Denver OIT - Getting Started with Accessibility
        - CU Communications - Consider Accessibility
        - Skillsoft Training: CU: Accessibility for Digital Communicators
    - web.dev Accessible to all
- Hyland publishes VPAT documentation for Forms and other products on Community/Connect.
    - EP3 Unity Forms VPAT (most recent version published)
- **Field Labels**: Make sure all fields have labels that indicate what should be entered there. This is also needed for the validation messages described in the section above.

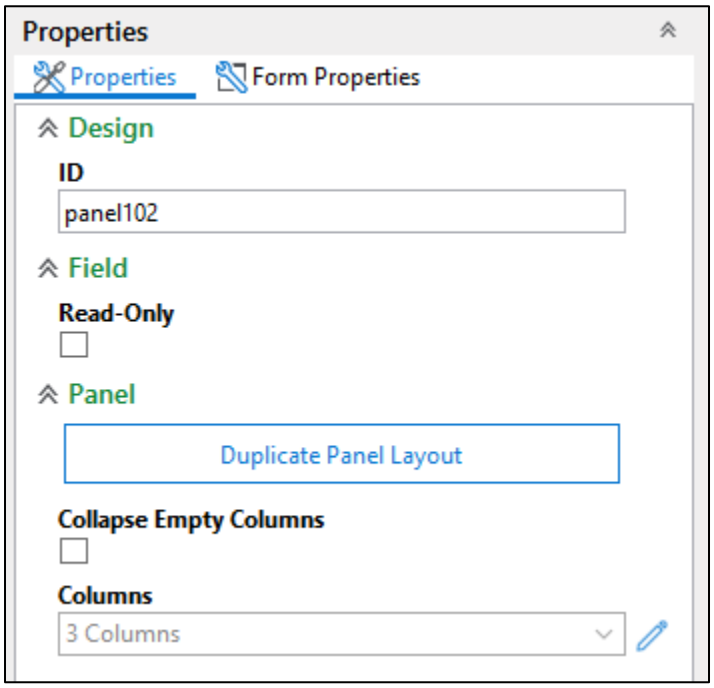


- Use [appropriate hyperlink text] on forms and in notifications.
- **Add Alt Text** to any images or non-text content on your forms (ideally for notifications as well but this is not an existing feature for formatted notifications). This is also used if the image fails to load.

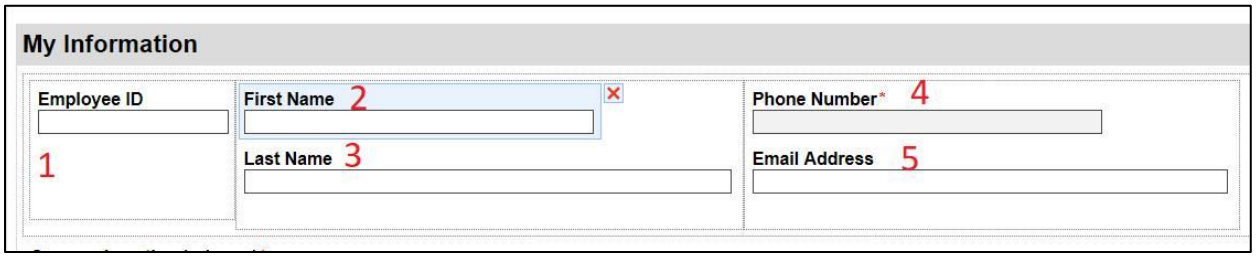


- Do not rely only on **color** to convey information. Make sure to use some other visual or non-visual indicator to make the same information available to all users.
    - Your form themes should have sufficient contrast between text and the background. Use tools like this [contrast checker] or this [color palette assistant] to verify your color usage.
    - More information from CU Boulder is available on their [color contrast page].
- Avoid use of the **Signature** form element; this poses issues for users navigating by keyboard or with mobility issues.
- **Tabbing Order**: When you have items in panel columns, the default tab order is to go top to bottom within each column, moving through each column left to right. So, in order to go across all fields left to right then to the next row, you have to use two separate panels.
    - Starting with EP3, there is enhanced functionality for setting a tabbing order.

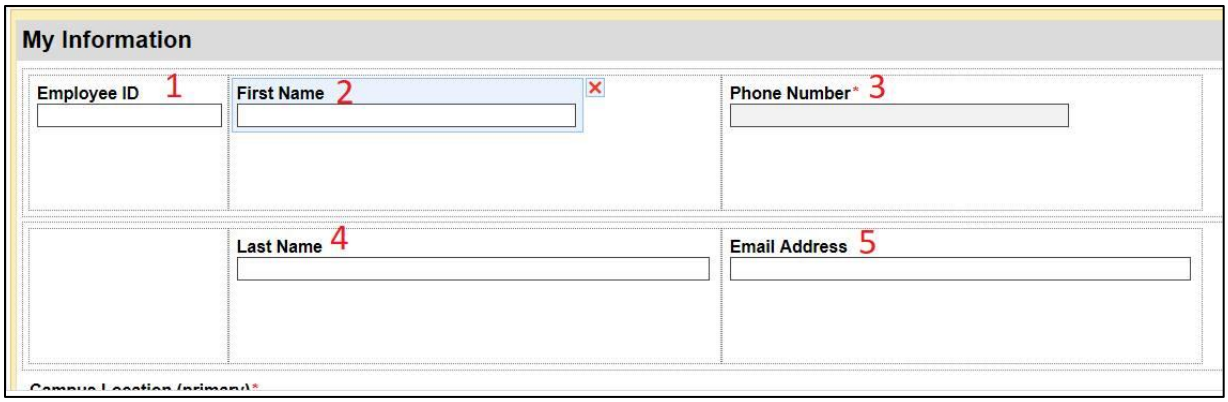
- Otherwise, use the Duplicate Panel Layout option to make another panel with the same column layout. Uncheck “collapse empty columns” to preserve the formatting if one or more columns will be empty.



- Tabbing order using one panel:

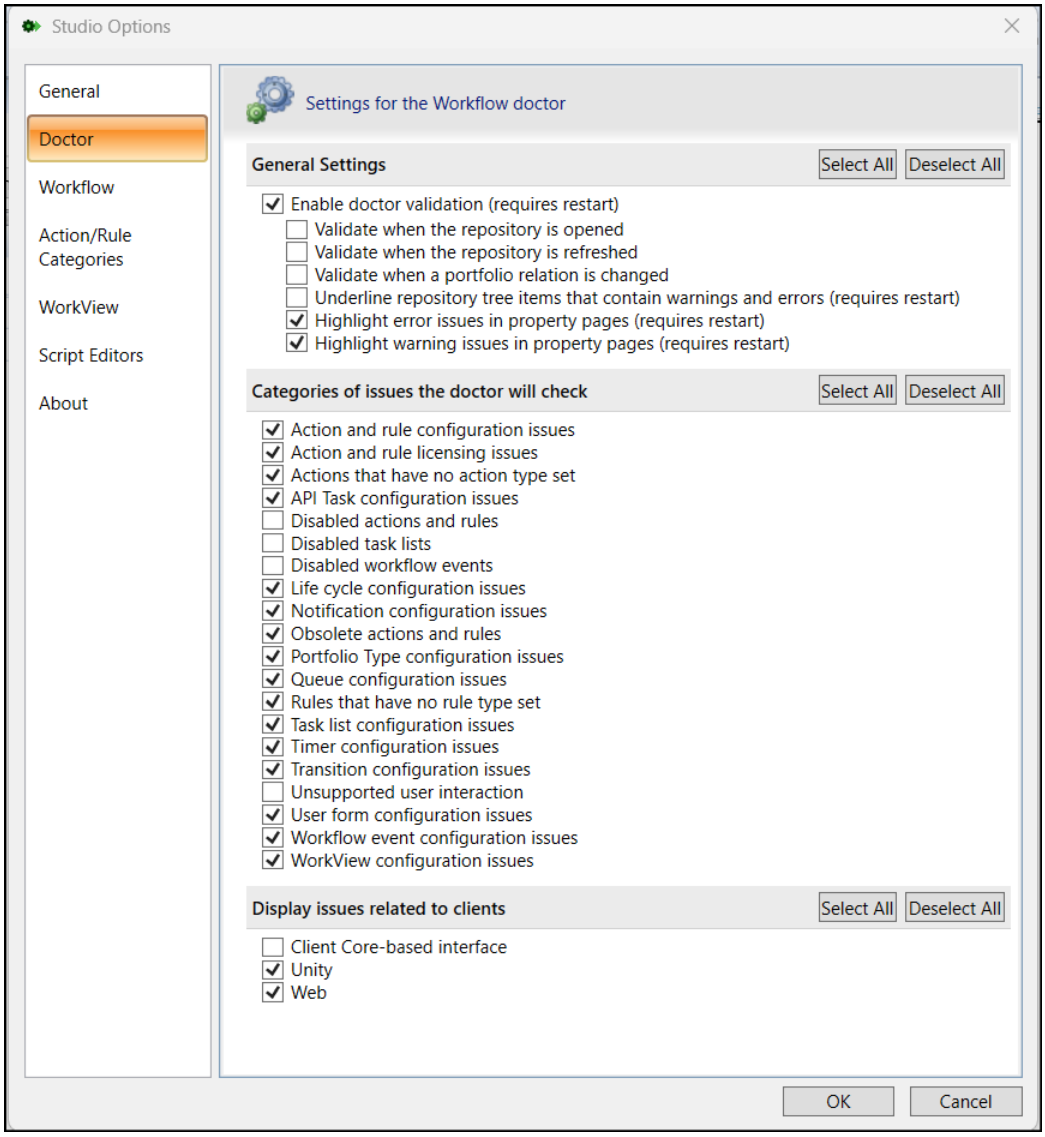


- Tabbing order using two panels:

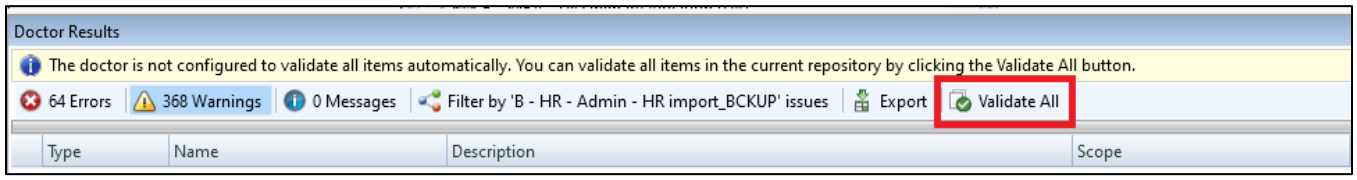


Workflow

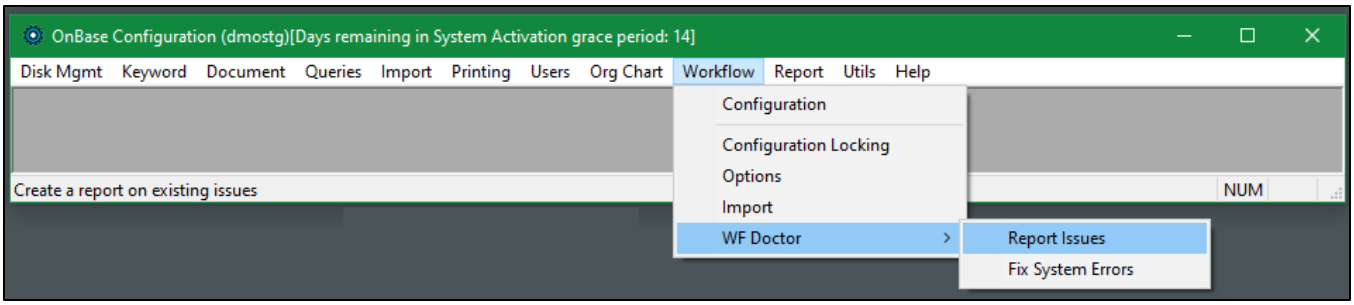
- Workflow life cycles, queues and notifications must follow the OnBase Naming Conventions.
- Processing on an **initial queue** should be done using a timer instead of system work.
    - When documents are submitted to a document type assigned to one or more life cycle(s), any initial system work will begin processing immediately and the user or process creating that content will not be able to move on until **all** processing is complete.
    - All automated processing will continue (even in other queues) until the item reaches a point in the life cycle(s) where user interaction is needed or a timer needs to run for processing to continue.
        - This can take a while for processing to finish, especially if running scripts or using the “copy property to/from form field” action.
        - This also exposes any error messages to the user, causing additional confusion.
    - Moving system work to a timer on the initial queue will allow content to submit more quickly and pass off processing to the scheduler server/service account. This can be set up with a one-minute interval to minimize the delay to the start of processing.
    - This really applies throughout workflow (timer work, ad hoc tasks, other queues) so consider which user session/workstation is going to be used to perform processing and how far the item will go before it waits for another timer or user task.
    - The first section of this course has a good explanation of these concepts: Workflow: Designing, Monitoring and Enhancing Performance
- Use the **Workflow Doctor** regularly to identify and correct configuration issues.
    - Refer to Workflow Doctor in the Workflow MRG for more information.
    - Workflow Doctor settings can be changed in Studio Options.



- Click **Validate All** to view the results.

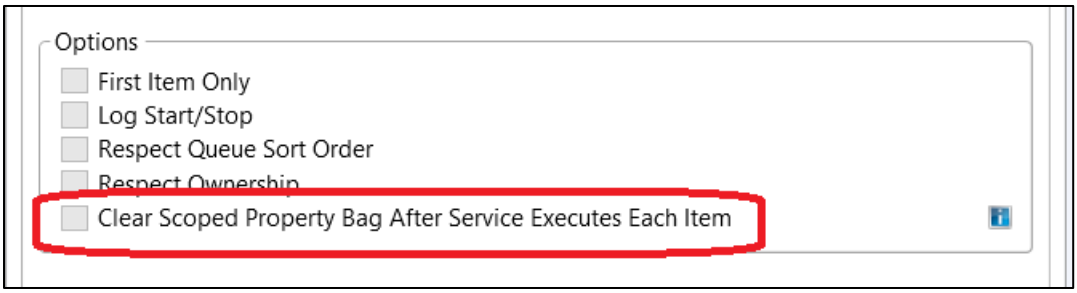


- Errors must be corrected. Warnings should be reviewed but may not require correction.
- Correct orphaned items and other issues as necessary using Configuration. Refer to Fix System Errors in the Workflow MRG for more information. Only repair items associated with your department.



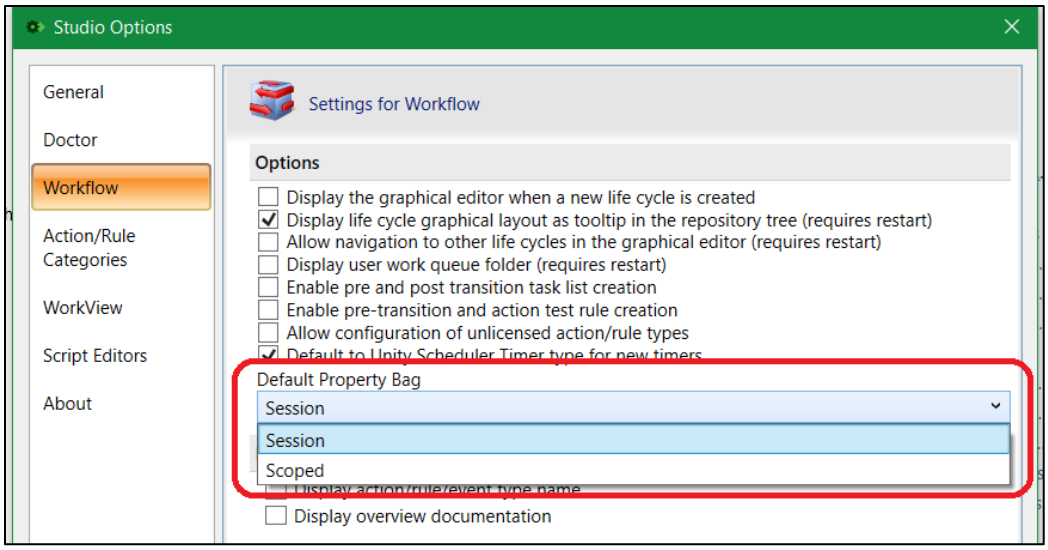
Common Workflow Issues/Questions:

- **Properties** (in workflow) can function like keywords in order to route documents, insert text into notifications/notes, collect user input, etc. The difference is that while keyword values are permanently stored for documents regardless of workflow activity, properties are temporary, workflow-specific values.
    - Only alphanumeric characters are supported in property names; no spaces or special characters should be used. Property names are case-sensitive in the Classic Client but not case-sensitive in the core-based clients.
    - Take care to define the property bag correctly and reference it consistently. For example, if a notification is being sent to an email address set to a property value, only session property values are available for setting recipients so the notification action will need to use the session property bag and the value will need to be set to the property using the session property bag.
    - The following property bags are available:
        - A **Session** Property exists for the life of the user's session and so is ***not inherently document-specific!***
            - If using the session property bag, set property values to a blank constant value to reset the value between documents. The “set multiple property values” action as a first step is helpful for resetting values with one action.
        - A **Scoped** Property exists for the duration of the Workflow task list.
            - On timers, an option exists to clear scoped properties for each item. It is recommended you use this setting if using scoped property bags.



- A **Persistent** Property exists as long as that item is in the Workflow Life Cycle.
    - These values are stored in the database so will be available as the document moves between queues or as timers execute.
    - These are scoped to the life cycle - so are not available to the document in other life cycles besides where the property value was set.
    - Since these are life cycle-specific, persistent properties are not available in System Tasks.
    - The “remove item from life cycle” action has options for clearing or not clearing persistent property values upon execution of that action. It is recommended that you **clear** persistent property values upon exiting the life cycle unless there’s a specific reason to retain them.

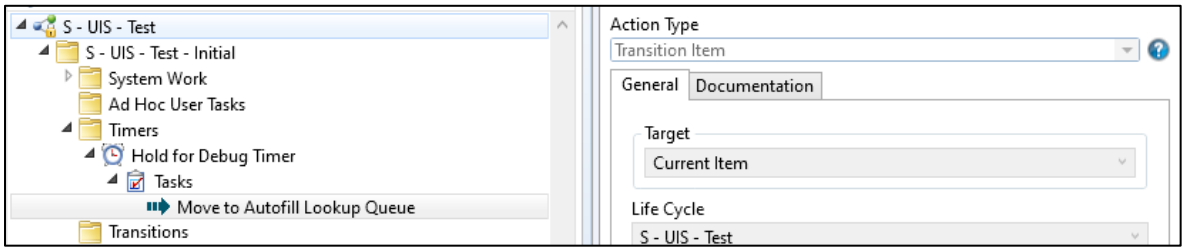
- Some (especially older) Unity script inputs may need to be set using the session property bag. Output from scripts is typically set to all property bags. However, be sure to test and reference the details of the specific script being used as each script is different.
- Starting with 22.1, you can set a default property bag in Studio. You can choose from Session or Scoped (but not persistent).



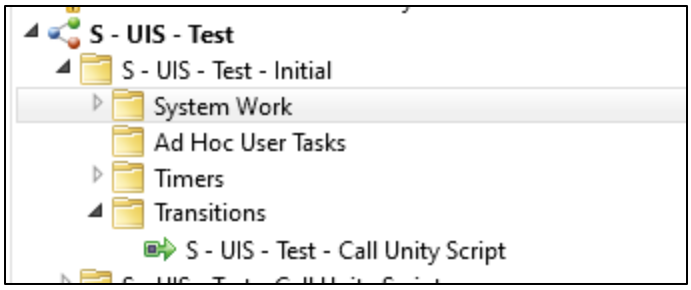
  - More information about properties is available in the Workflow Values section (22 minutes) of the Workflow: Designing, Monitoring and Enhancing Performance premium subscription course. These community posts are also helpful:
    - How to view Workflow "Property" values set from system work / ad hoc tasks / timers
    - Workflow Property Actions

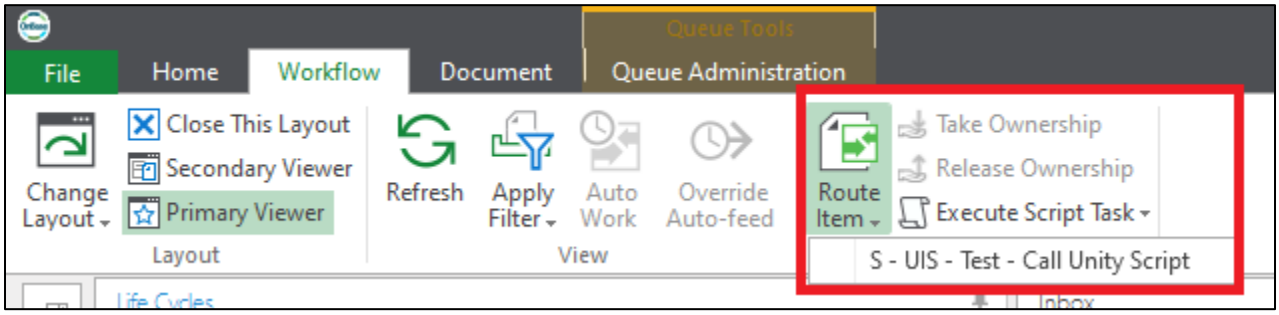
- **Log Execution**: When this is enabled, any items that are logged will appear on the Workflow Transactions tab of Document History. The name of the item in Studio is what will be logged.
  - This option can be selected using the checkbox at the bottom of the properties/configuration panel for:
    - Ad-Hock tasks (recommendation: always)
    - Task Lists (recommendation: sparingly, but as needed)
    - Rules (recommendation: sparingly, but as needed. Do not log “on true” or “on false” task lists.)
    - Actions (recommendation: sparingly, but as needed. Some action types that should never be logged are noted below.)
  - This is necessary for viewing ad hoc task activity in Reporting Dashboards.
    - Logging only needs to be enabled on the task itself (not any actions/rules within the task) in order to use the data in reporting dashboards.
  - If too many items are set to log to document history, the information can become meaningless and excessive logging can also cause document history to fail to load, so use this option only where it is needed and it makes sense to do so.
    - You may wish to use this option for testing/troubleshooting, but then disable logging afterwards. However, On Demand Diagnostics is generally a better troubleshooting tool (does not require configuration changes or client restart).

        - In the System Validation category, there is an **OnBase SV Workflow Log Execution** reporting dashboard that will show which items are being logged using Log Execution. Please review this periodically to ensure that logging is not being done where it is not needed or useful.
        - Be especially careful logging items included on a timer. For example, if a timer is running on a document every 5 minutes for a week and logging 10 rules/actions on the timer, over 20,000 records will be logged for that document in just one week for that timer alone.
    - There are certain types of actions/task lists that should **never** be logged to Workflow Transaction History.
        - Actions that are already logged to document history/queue history. Logging these actions this way is redundant and will diminish performance without providing any additional value. This includes actions that:
            - move a document to another queue
            - add a document to another life cycle
            - remove a document from a life cycle
            - update keyword values
            - create a note
        - The "On True" and "On False" branches of rules will very rarely provide value by being logged, especially if multiple/nested rules and actions are being used. You will not be able to tell which rule the result is for and end up with many rows that look exactly the same.
- There are two different ways **"transitions"** are referenced within workflow. For more information, refer to the Workflow MRG.
    - In normal processing, the way items should be moved between queues is using the "Transition Item" action type within system work, an ad hoc user task, or timer work.



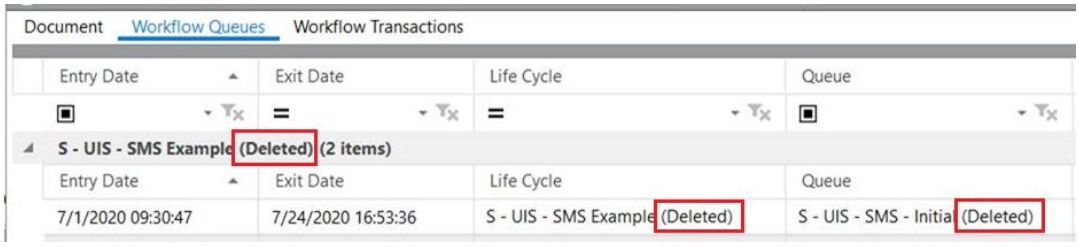
    - The Transitions "folder" within a queue in workflow configuration exists so that you can add transitions between queues that are used for overrides or exceptions to normal processing.
        - Only administrators/users with escalated permissions will have access to this "ad hoc routing" via the Route Items button.





  - If a user should be given permission to ad hoc routing, that is configured in Studio (select queue, then Advanced tab, User Privileges).
  - This should only be used when necessary, your primary method of routing documents between queues should be the “transition item” action type within an ad hoc task or timer/system work.

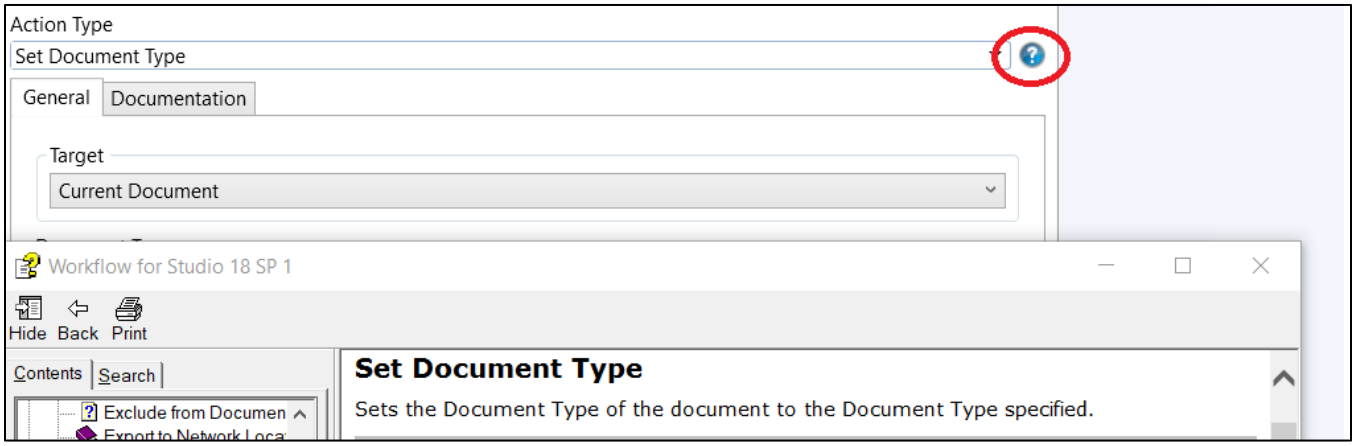
- **Deleting a Life Cycle**
  - All items must be removed from the life cycle before it can be deleted. This includes items that have been deleted but not yet purged which are in Document Maintenance. You can either purge those items or use the “remove work items” option in Studio to remove the relationship to the queue.
  - When you delete a life cycle the document history in Workflow Queues logs remains intact, but the life cycle and queues will display as (Deleted).



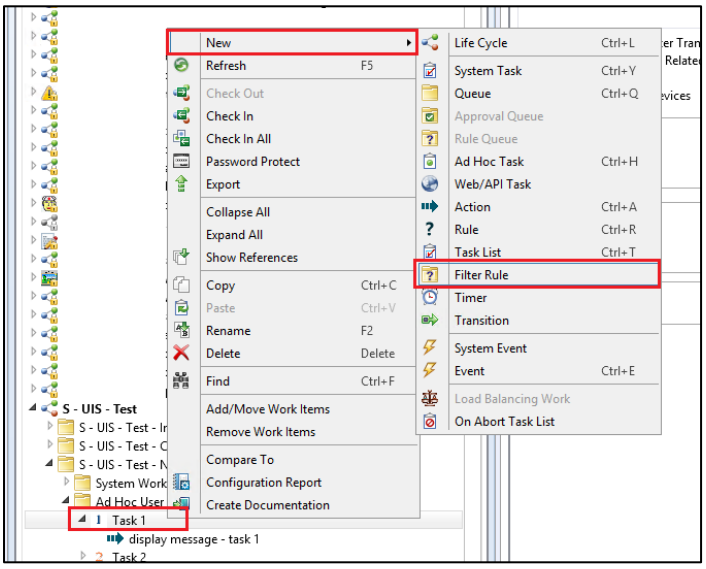
Tips:

- Some helpful Hyland trainings:
  - Workflow Hands-On Lab Part 1
  - Workflow Hands-On Lab Part 2
  - Workflow Administrative Tools & Tips: Hands-On Lab
  - Workflow and Studio Introduction

    - Administrative Tools and Tips for Workflow
    - Workflow: Designing, Monitoring and Enhancing Performance
- **Expressions** allow for complex logic within a single rule (Evaluate Expression) or action (Set Property to Expression). This can greatly reduce the number of rules/actions needed, making your life cycle easier to understand and maintain and increasing the performance. Refer to Commonly Used Expressions for more information.
- Hold the SHIFT key while dragging and dropping an item (like a rule or an action) to only move the item (rather than creating a linked copy).
- Use the built-in **help** inside of OnBase Studio, it has all the same information that you'll find in the Workflow MRG for each rule or action type.

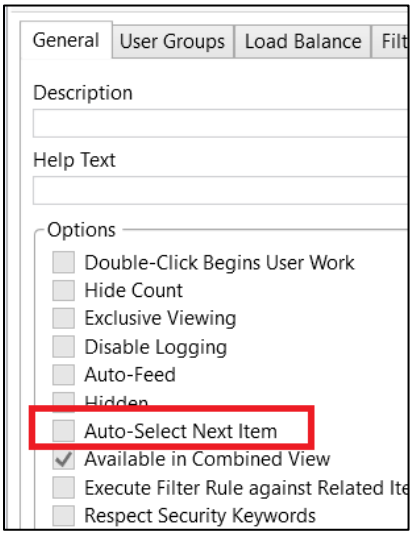


- You may choose to **password protect** your life cycles. This will require the password to check out the life cycle. If you do, please be aware the password cannot easily be retrieved if forgotten; this will require assistance from Hyland.
    - If after removing password protection from a life cycle it still appears to be locked or will not export, you may also need to update Configuration Locking in the Configuration client (Workflow > Configuration Locking). Uncheck the box next to the desired items then Save.
- Refer to the Workflow administrative reporting dashboards for easy access to configuration overviews, such as document types configured for life cycles, notifications, and queue content counts.
- **Filter Rules** can be used to show ad hoc tasks only when certain conditions are met.
    - Filter Rules are useful to control which tasks are available for a document in situations like:
        - Items should only be approved if the Effective Date keyword value is today or earlier.
        - Within one queue, one task should be used to approved request type A, another task should be used to approve request type B.
    - Right click the task and choose New > Filter Rule.



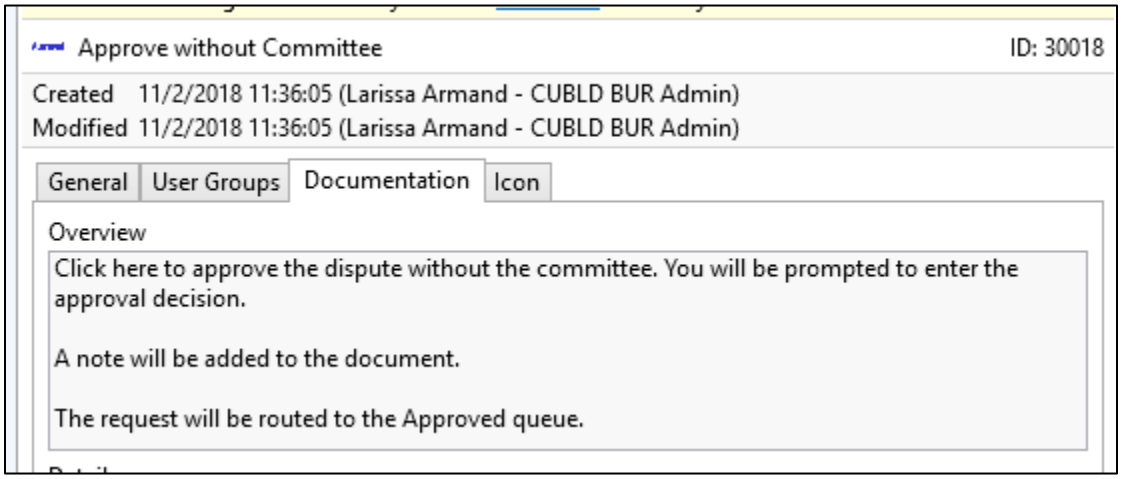
- Configure the rule so that it will evaluate to **true** when you want the task to be available/visible.
- More information on Filter Rules is available in the workflow MRG.

- The “Auto-Select Next Item” option is recommended for queues that users will interact with. This will move them to the next item in the queue to display the document and make tasks available without them having to go back to the inbox list to select the next item.

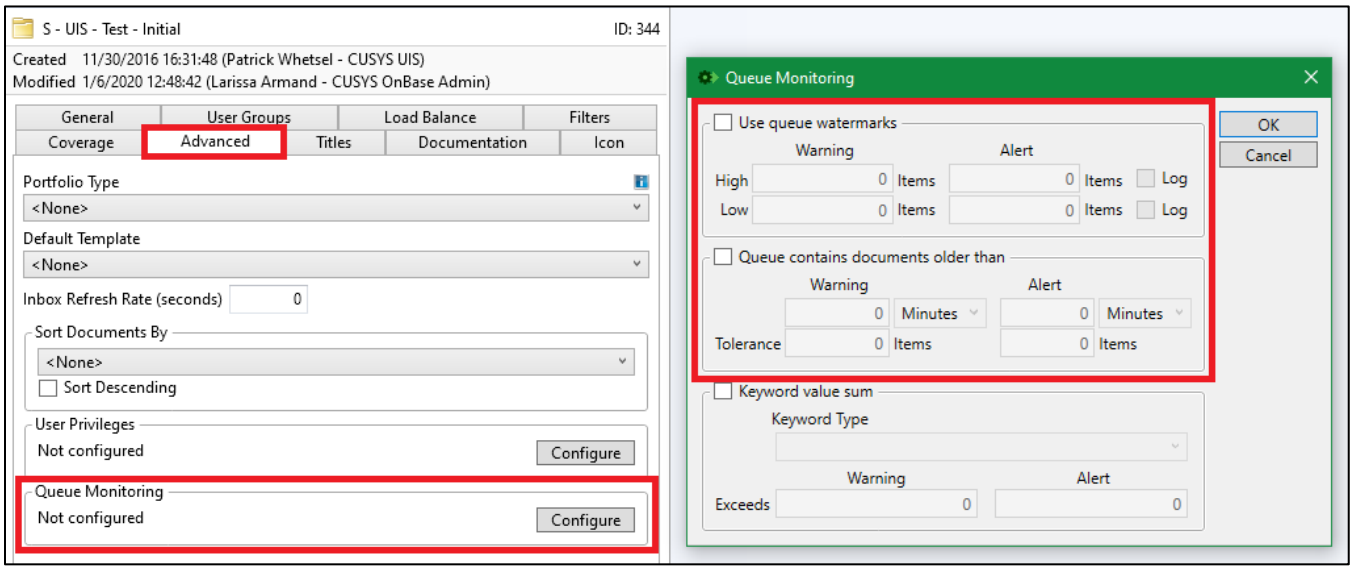


- Enter **documentation** information on the Documentation tab for each item, especially life cycles, queues and tasks.

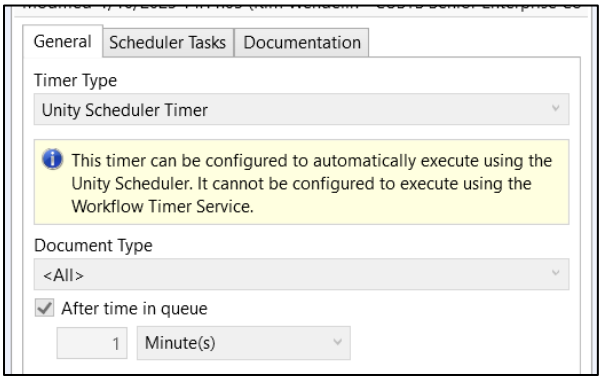
- This is useful for others who may need to review/edit the life cycle in the future and can also be used to generate documentation as a document, either for your own purposes or to aid end users in using and understanding the workflow.
- You can also create your own templates for the generated documentation to customize the default formatting.
- Refer to *Generating Documentation for Life Cycles* in the Workflow MRG for more details.



- Each queue can be configured with a threshold for document count or time in queue. If this is configured, any queues where one or both of these values is exceeded will be highlighted in deep red and bold font on the **OnBase Content Count by Workflow Queue** reporting dashboard.



- You can right click a life cycle and click **Compare To** to find differences between life cycles. When connected to more than one environment/repository, this is useful to identify differences between production and non-production.
- When creating a Timer in Workflow, be careful with the "**After time in queue**" setting and consider how any time period configured here will intersect with the interval of the scheduler task running the timer.

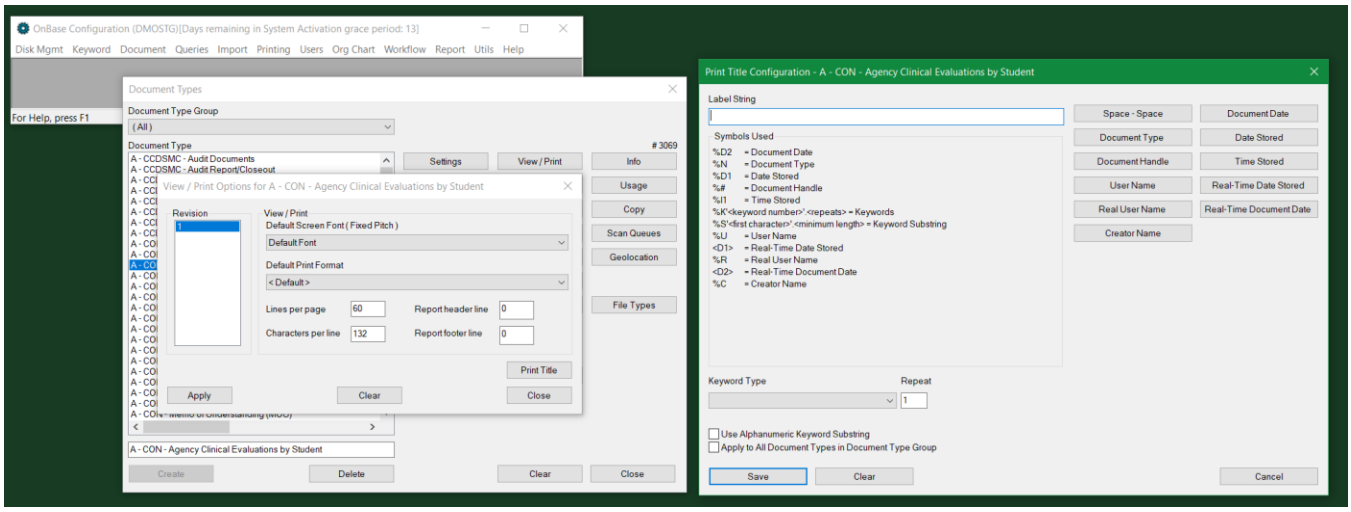


  - This "after time in queue" setting is ignored when manually executing timer work through Queue Administration.
  - This setting should only be used in cases where there is an absolute minimum amount of time an item should be in the queue before the timer work applies and the scheduler task interval cannot meet the requirement on its own. Essentially, setting an "after time in queue" value will cause items that do not meet the additional criteria to be ignored when the scheduler task runs.
  - In most cases, using a "Check Date Keyword" rule will be more appropriate than the "after time in queue" setting. This rule type allows you to evaluate the queue entry date against the current date to see if an item has been in the queue a certain length of time before proceeding with further rules and actions.
    - Example: You want to send a notification for items that have been in the queue for 3 or more days. Once the item has been in the queue 3 days, the notification will be sent. Then, each following time the scheduler task runs the timer work, that rule condition will still be true and the notification will be sent again.
  - In other cases, you may want to increment a persistent property value.
    - Example: Every 5 days you want to send a reminder notification until the item is no longer in the queue. Increment the property value each day, then once the value is 5, send the notification and set the property value back to 0. When it reaches 5 again, the reminder will be sent again. This allows the reminders to be sent on the specified interval and only on that interval.

- When copying a life cycle, it may be better to export and import the life cycle with a new name, rather than creating a copy with the built-in function. The copy option may not include all notification templates.
- See Studio tips below.

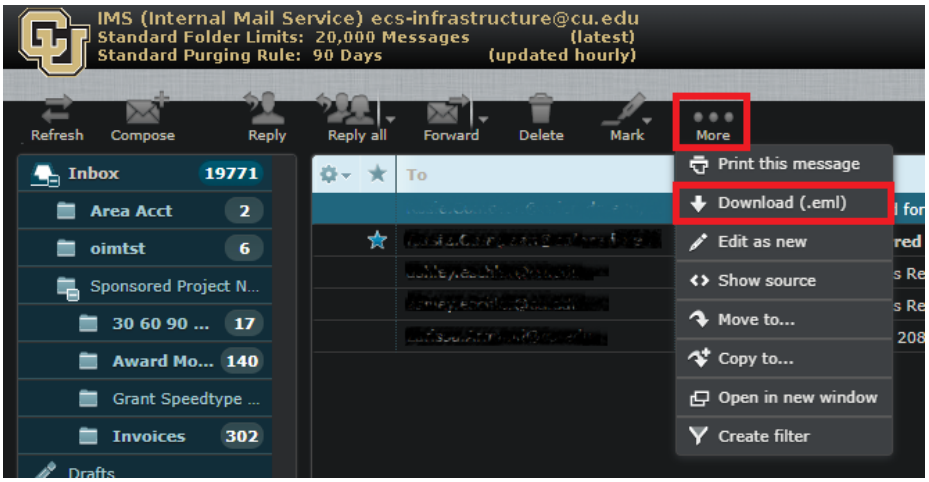
Workflow Notifications

- Prior to an action sending a notification, confirm any keyword or property values used as a recipient on the notification contains a valid value.
    - You can use a rule like “Keyword Value Exists” to check that there is a value, but this won’t validate that the value is a valid email address.
    - You can use an “Evaluate Expression” rule to check for a valid email address format.
    - If the value doesn’t exist, you can try using a script to retrieve student email addresses from Campus Solutions or employee email address from HCM.
- The “print autoname” string (aka “print title”) is used as the display name on any attached OnBase documents. If no print autoname/print title is configured for a document type, the standard autoname string is used instead. To configure a print title, go to Configuration > Document > [select document type] > View/Print > Print Titles. From there, it is configured in the same way as a standard autoname string.

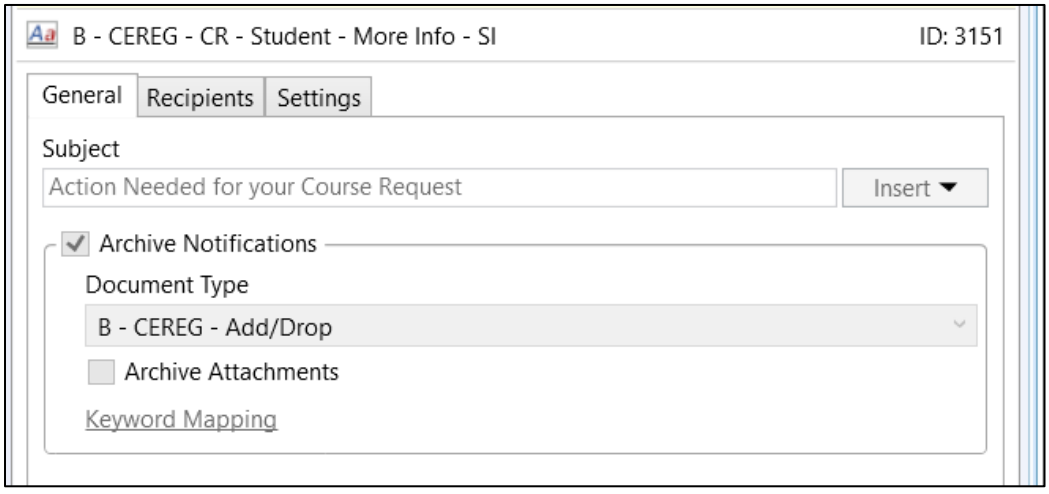


- In the non-production environments, workflow notifications will not send to the recipient address.
    - Messages will be available for review at https://ims.dev.cu.edu/.
        - This requires access and connection to the UIS VPN.
        - Contact UIS_DM_Support@cu.edu for login information for IMS.

- This is true whether the notification is generated by workflow processing in the client or you use the Generate option in Studio.
- To open messages in Outlook (or another client), use the More… menu option and choose Download.

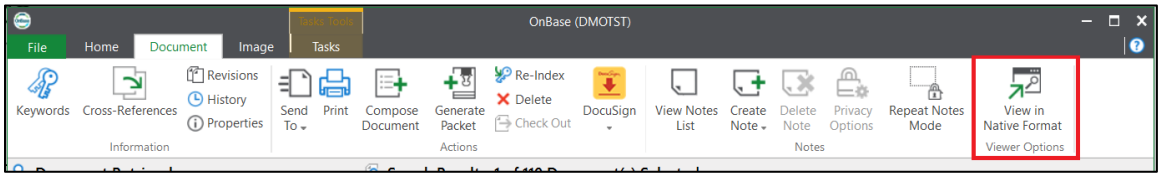


- Alternatively (or in addition), you can store the notifications to a document type in OnBase. This allows you to view the sent notifications without using the IMS inbox.
  - This is done in the notification configuration in Studio. Under the subject line, check the box for **Archive Notifications** and choose a document type. Below that, you can open the window to map keyword values from the primary item to the generated notifications.

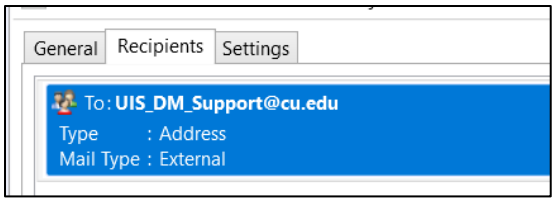


  - Be sure to map some keyword types so you can search for your items.
    - Campus Code should be mapped so that new documents are not created without that required value.

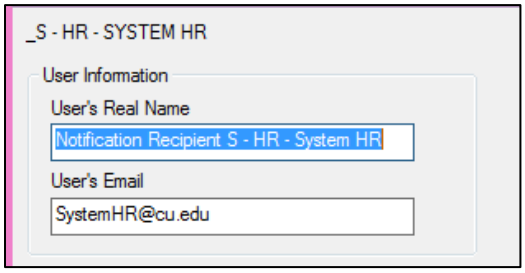
        - Depending on the type of content, typically student and/or employee ID should be mapped as well along with the name.
        - If you are using cross references to show notifications related to the primary item, it's recommended to map the Document Handle to a keyword value on the notification document so you can use that value as the common value between items.
        - If the document type used to store your archived copies uses the keyword types that start with "MAIL", those do not need to be mapped, they will automatically be populated with values from the message.
    - This can be a really helpful feature beyond testing and can be used with cross references/related items to see the full details of a process or request.
    - By default, the web client will download email messages to view in your installed email client. The Unity client will display email messages as an image. In order to use any hyperlinks in the email, you can use the option on the Document tab of the viewer to "View in Native Format" to open in your local email client.

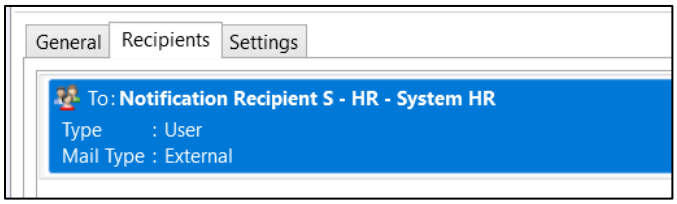


- Formatted notifications must be published (in addition to saving the repository) in order to become active. This creates a new revision of the template.
    - This does NOT require a cache reset in order to take effect.
    - You can see previous versions/revisions to a formatted template by right clicking the template name and choosing Versions.
- It is strongly recommended that you do NOT assign notification recipients based on individual user accounts. This requires additional maintenance and support as people come and go, and is easy to miss with potential for significant negative effects on a process. Instead, assign recipients based on group, load balancing assignment, keyword or property values.
- When migrating workflow configuration, any notification recipients configured as an "Address" will not be included in the import file.
    - You can reconfigure the address after importing.



- You can use a keyword or property value to set the recipient address.
- Or, you can use a "notification recipient" user account with the desired addresses and configure the notification to send to that user account. For example:





Don't assign the "Notification Recipient" user to any user groups, it only exists to hold the email address.

Real Name should follow the naming convention of:
Notification Recipient -<campus initial> - <dept abbreviation> - <description>

User Name should be:
_< campus initial> - <dept abbreviation> - <description>

Tips:

- To include a link in a notification in order for the recipient to make changes to a Unity form, refer to the Workflow - Notifications - FormPop guide on the Training page.
- Refer to the *OnBase Workflow Notifications* reporting dashboards for easy access to configuration information.
- When configuring a sender address, you can choose from property values, keyword values, or fixed values. A display name can be included along with the address, formatted as: "Display Name address@cu.edu"

- Only official CU email domain addresses are allowed to send notifications. Email domains like gmail.com, yahoo.com, etc. are blocked on our email servers. If you prompt people for a sending email as part of the Workflow process, add a warning telling them anything but CU email addresses will be blocked.

System Tasks

Tips:

- From the Workflow MRG: "System Tasks allow you to execute a task list against a document that is not necessarily associated with a life cycle. You must associate the system task with any document types holding content on which you want to execute the task."
- System Tasks are similar to Ad Hoc Tasks but are executed from the Tasks tab when using Retrieval/Custom Queries, rather than within a workflow queue. These tasks are not available from life cycles or within Unity form custom actions.
- System Tasks must follow the OnBase Naming Conventions (same as for life cycles). Actions and Rules are not scoped to individual System Tasks, so each one used within a System Task will need a unique name unless it should be reused by multiple System Tasks.
- Use "Workflow" user groups to assign access to System Tasks.
- For instructions on configuring System Tasks, refer to the Workflow MRG.
- The persistent property bag pertains to a certain item in a certain life cycle, so is NOT available in the context of a system task.
- System Tasks can be executed on multiple documents. Retrieve and select the desired documents (with the document viewer closed), then execute the task.
    - Executing system tasks in web client
    - Executing system tasks in Unity client
    - It is not recommended to run system tasks on more than ~3,000 documents at a time. Even that may take a very long time depending on the complexity of the processing.
    - Executing a system task in your client means your client is responsible for that processing, so cannot be used for anything else during that time.
    - For complex or long-running processing, it would be better to put those rules/actions in a life cycle to allow the scheduler server to perform the processing. If needed, the system task can be used to add the appropriate items to the life cycle.

Recommended uses:

- Adding a document to a certain life cycle queue (in cases where the document should not go to the initial queue, such as if it's already been processed; also good for exception processing where the document type isn't associated with the life cycle)
- Preparing a document for re-processing. If a document has already been processed, you can use a system task to update keyword values prior to re-processing and to specify the life cycle(s) and queue(s) the document should be added to.
- Update keyword values or the document type for selected documents.
- To support Actions for WorkView.

System Events

- System events are triggered by certain actions, not user-initiated or scheduled. In our environment, this is primarily to support WorkView.
- Information on configuring System Events is available in the WorkView MRG under "Using Events". It's done in Studio along the same lines as a System Task.
- The rule type/action type list is not filtered in Studio; it will allow you to configure rules and actions using unsupported types. So it's important to reference the documentation for what rules/actions are supported for each event type.

Reporting Dashboards

- Reporting dashboards, categories, data providers and reports must follow the OnBase Naming Conventions.
- Only assign "Reporting" user groups when sharing dashboards. Do not assign reporting items directly to individual user accounts.
- Do not add dashboards to the UIS administrative dashboard categories. You can create and share your own categories as needed.
- If you are unable to export/import reporting items through the Unity client, use Studio or Configuration instead.
- For assistance with SQL data providers, contact the UIS team.

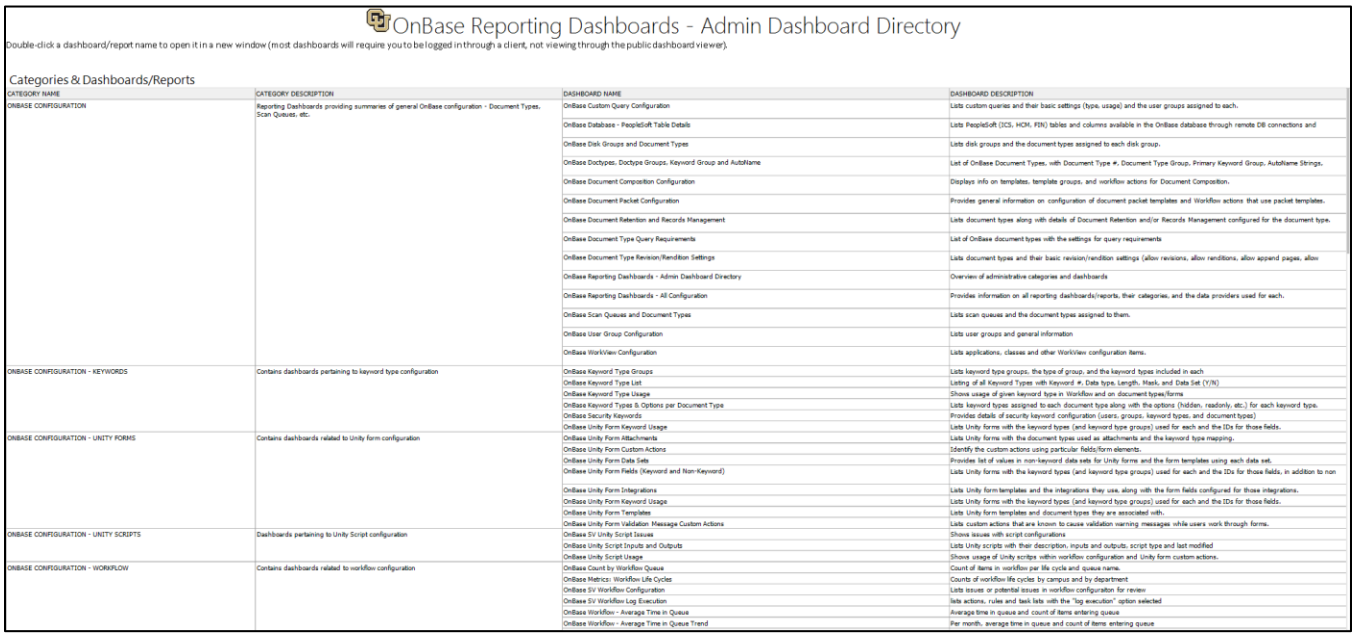
Resources:

- Hyland's premium subscription includes these trainings, which are great starting points for learning about dashboards.
    - A hands-on lab for Reporting Dashboards.
    - Intro to Reporting Dashboards
    - Reporting Dashboards Beyond the Basics (covers WorkView reporting)
- Reporting Dashboards MRG
- Our Reporting Dashboards Guide on the UIS OnBase Training page

- Reporting Dashboards - Share by URL on the UIS OnBase Training page

Tips:

- Several reporting dashboards are available to assist admins with easy access to information for monitoring or reference. In the Unity or web client, look for the UIS administrative dashboard categories under “Shared with Me”. A directory of administrative dashboards is available as a dashboard.



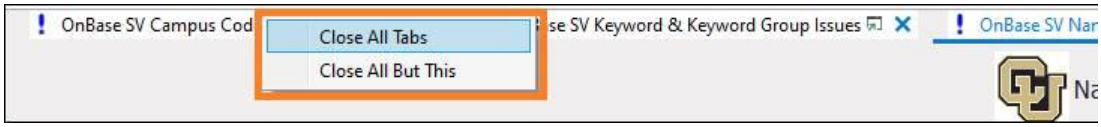
OnBase Reporting Dashboards - Admin Dashboard Directory

Double-click a dashboard/report name to open it in a new window (most dashboards will require you to be logged in through a client, not viewing through the public dashboard viewer).

Categories & Dashboards/Reports

CATEGORY NAME	CATEGORY DESCRIPTION	DASHBOARD NAME	DASHBOARD DESCRIPTION
ONBASE CONFIGURATION	Reporting Dashboards providing summaries of general OnBase configuration - Document Types, Scan Queues, etc.	OnBase Custom Query Configuration	Lists custom queries and their basic settings (type, usage) and the user groups assigned to each.
		OnBase Database - PeopleSoft Table Details	Lists PeopleSoft (ICS, HCM, FIN) tables and columns available in the OnBase database through remote DB connections and
		OnBase Disk Groups and Document Types	Lists disk groups and the document types assigned to each disk group.
		OnBase Doctypes, Doctype Groups, Keyword Group and AutoName	List of OnBase Document Types, with Document Type #, Document Type Group, Primary Keyword Group, AutoName Strings.
		OnBase Document Composition Configuration	Displays info on templates, template groups, and workflow actions for Document Composition.
		OnBase Document Packet Configuration	Provides general information on configuration of document packet templates and Workflow actions that use packet templates.
		OnBase Document Retention and Records Management	Lists document types along with details of Document Retention and/or Records Management configured for the document type.
		OnBase Document Type Query Requirements	List of OnBase document types with the settings for query requirements
		OnBase Document Type Revision/Rendition Settings	Lists document types and their basic revision/rendition settings (allow revisions, allow renditions, allow append pages, allow
		OnBase Reporting Dashboards - Admin Dashboard Directory	Overview of administrative categories and dashboards
		OnBase Reporting Dashboards - All Configuration	Provides information on all reporting dashboards/reports, their categories, and the data providers used for each.
		OnBase Scan Queues and Document Types	Lists scan queues and the document types assigned to them.
		OnBase User Group Configuration	Lists user groups and general information
		OnBase WorkView Configuration	Lists applications, classes and other WorkView configuration items.
ONBASE CONFIGURATION - KEYWORDS	Contains dashboards pertaining to keyword type configuration	OnBase Keyword Type Groups	Lists keyword type groups, the type of group, and the keyword types included in each
		OnBase Keyword Type List	Listing of all Keyword Types with Keyword #, Data type, Length, Mask, and Data Set (Y/N)
		OnBase Keyword Type Usage	Shows usage of given keyword type in Workflow and on document types/forms
		OnBase Keyword Types & Options per Document Type	Lists keyword types assigned to each document type along with the options (hidden, readonly, etc.) for each keyword type.
		OnBase Security Keywords	Provides details of security keyword configuration (users, groups, keyword types, and document types)
		OnBase Unity Form Keyword Usage	Lists Unity forms with the keyword types (and keyword type groups) used for each and the IDs for those fields.
ONBASE CONFIGURATION - UNITY FORMS	Contains dashboards related to Unity form configuration	OnBase Unity Form Attachments	Lists Unity forms with the document types used as attachments and the keyword type mapping.
		OnBase Unity Form Custom Actions	Identify the custom actions using particular fields/form elements.
		OnBase Unity Form Data Sets	Provides list of values in non-keyword data sets for Unity forms and the form templates using each data set.
		OnBase Unity Form Fields (Keyword and Non-Keyword)	Lists Unity forms with the keyword types (and keyword type groups) used for each and the IDs for those fields, in addition to non
		OnBase Unity Form Integrations	Lists Unity form templates and the integrations they use, along with the form fields configured for those integrations.
		OnBase Unity Form Keyword Usage	Lists Unity forms with the keyword types (and keyword type groups) used for each and the IDs for those fields.
		OnBase Unity Form Templates	Lists Unity form templates and document types they are associated with.
		OnBase Unity Form Validation Message Custom Actions	Lists custom actions that are known to cause validation warning messages while users work through forms.
ONBASE CONFIGURATION - UNITY SCRIPTS	Dashboards pertaining to Unity Script configuration	OnBase SV Unity Script Issues	Shows issues with script configurations
		OnBase Unity Script Inputs and Outputs	Lists Unity scripts with their description, inputs and outputs, script type and last modified
		OnBase Unity Script Usage	Shows usage of Unity scripts within workflow configuration and Unity form custom actions.
ONBASE CONFIGURATION - WORKFLOW	Contains dashboards related to workflow configuration	OnBase Count by Workflow Queue	Count of items in workflow per life cycle and queue name.
		OnBase Metrics: Workflow Life Cycles	Counts of workflow life cycles by campus and by department
		OnBase SV Workflow Configuration	Lists issues or potential issues in workflow configuraton for review
		OnBase SV Workflow Log Execution	lists actions, rules and task lists with the "log execution" option selected
		OnBase Workflow - Average Time in Queue	Average time in queue and count of items entering queue
		OnBase Workflow - Average Time in Queue Trend	Per month, average time in queue and count of items entering queue

- Some dashboards are also available publicly, for information about making a dashboard public, refer to Reporting Dashboards - Make a Dashboard Public on the UIS OnBase Training page.
- Users with the appropriate permissions can export dashboard data.
    - The Export Data option in the main menu exports the data provider data without any filtering or sorting applied based on the dashboard display.
    - The Export option on the title bar of each dashboard element will reflect filters applied from other dashboard elements, but not filters applied within the columns of the dashboard element being exported.
- Report/data provider output can be scheduled for delivery using the Unity Management Console. There you have the option to store the report to a file (only use the standard network locations accessible to the servers) or to store the file in OnBase (where it can then be routed to workflow to send as an email attachment).
- You can open multiple dashboards at once. To close multiple dashboards at once, right click one of the tabs and choose “Close All Tabs” or “Close All But This”:



Unity Script Usage

Tips:

- Unity scripts are primarily used within Unity form templates or in workflow processing, but can also be used elsewhere, such as scheduled in the Unity Management Console, if applicable.
- Refer to the *Unity Scripts Inputs & Outputs* reporting dashboard in the *Configuration - Unity Scripts* category for details on what each script does, where it can be used, and what the required (keyword, property and/or form field) inputs are and expected outputs are.
- To use scripts in a Unity form template:
    - Be sure to thoroughly test this in non-production.
    - Add a custom action to the form. For more information on custom actions, please refer to Configuring Custom Actions in the Unity Form MRG.
    - You will also need to make sure that the correct IDs have been assigned to the relevant fields.
        - Form scripts identify the fields to collect input values from and write output values to using the field ID.
        - The display name (label) can be whatever you like but the ID must match the field IDs used by the script exactly.
        - Refer to the Inputs & Outputs dashboard for the IDs.
    - You will need some criteria that will be met so the form will know when to call the script.
        - The conditions for the action will depend on your form and process, but typically one or more of these criteria are a good starting point:
            - Form is new (unless you want the script to also run after forms have been submitted and are being retrieved or processed in workflow)
            - Field is not empty (the input value(s) should be entered before the script runs)
            - Condition button is clicked
    - Then you will need an action to run the script (action type = Execute Unity Script, then select the script from the list). Other actions can also be added if necessary.
- When using scripts in workflow, either the “Run Unity Script” rule type or “Run Unity Script” action type can be selected.

- Be sure to thoroughly test this in non-production.
- Make sure all inputs (keywords and/or properties) have a valid value prior to running the script.
- Depending on the script, typically either a keyword value will be updated (so that keyword type must be assigned to the document type) or you will get back a property value which you can then set to a keyword value or use in whatever way makes sense.
- When a unity script is run from a rule, the only thing being evaluated is the internal script property **ScriptResult**.
    - When a script runs successfully, regardless of if it brought data back from a SQL query, updated keywords, etc. or not, **ScriptResult** will always return "True." This only means that no error was encountered.
    - If there is an error, and the script throws an exception, then the **ScriptResult** will return "False."
    - This is separate from the **UnityScriptResult** property value that may also be returned by a script and depending on the script will return True/False based on the criteria defined by that specific script.
- You can use the rule to first verify that the script ran, then use other actions/rules as needed to work with the values returned by the script. Or, you can use the action and then a series of rules/actions to work with the results.
- In either case, we recommend:
    - Clearing property values prior to running the script (especially if using the session property bag, in that case this is necessary).
    - Enabling the "refresh item after script has executed" option on the rule/action.

- Some scripts include queries for data from other enterprise applications (ex. Campus Solutions, HCM, FIN, InfoEd).
    - Unity scripts will query the corresponding environment for that application. So if you are using a script in DMOTST that queries student data, that data will be coming from ICSTST. Each application has a different refresh schedule, so if you are not getting the results you expect, verify the data in the source application for the applicable environment and consult the refresh schedule.
    - Most data from other applications used in OnBase scripts comes from materialized views that are refreshed every 10 minutes. If the data in the source application is being changed, wait at least 10 minutes to proceed with any OnBase activity that relies on the new data.
    - Unity scripts can read/select data from other applications but cannot update/insert/modify data in those other applications (though other methods may be available such as web services or file based data imports).
- If you need a new OnBase Unity script created, please contact UIS_DM_Support@cu.edu with your requirements.

- What is the general functionality and purpose?
- What is the context (ex. form custom action, workflow)?
- Are there certain keyword types, property names or form fields you're using as inputs or outputs?
- If the script will include a SQL statement to retrieve data from ICS, HCM, FIN, etc. you'll need to provide the SQL so that we know the tables to use, fields to select, and the criteria to get accurate results.
    - If you have an existing PS Query, the SQL tab from Report Manager can be a starting point.
    - If you don't have a departmental or campus resource to assist with writing the query, the CU-SIS, FIN and/or HCM teams at UIS may be able to provide some guidance.
- If we don't have access to the tables involved already, it may take up to two weeks to obtain access to the data before any script development begins.

Pop Integrations

- **DocPop** allows users to view existing documents using a simplified Web Client viewer interface by accessing a URL, without any extra OnBase functionality or access.
    - An OnBase account with sufficient privileges is still required to view the document.
    - DocPop can also be used to return the results of a custom query. This is how Related Content from PeopleSoft applications works. A DocPop URL Creator is available for each environment on the SharePoint page.
    - Users with sufficient privileges can manually create a DocPop URL for a document using the Send To > Mail Recipient (as URL) option on a document through the client menu.
- There are a variety of "Pop" integrations based on DocPop functionality:
    - **FormPop** allows users with the URL to the form to view and edit existing Unity Forms. An OnBase account is not required.
    - **WorkflowPop** can be used to direct a user (with a URL) to a workflow queue to assist them in processing items. An OnBase account with sufficient privileges is required.
    - **UnityPop** can be used to direct users to content within the Unity client instead of the web viewer. This requires the client to be running locally in service mode and authentication to an OnBase account with sufficient privileges.
        - View a document: onbase://document/view/?DocID=XXXXXXXX
        - View the results from a Custom Query: onbase://cq/?cqid=XXX&cqname=XXX&KT113_0_0_0=XXXXXXXXX

        - View a Workflow lifecycle/queue: onbase://wf/lc/?LifeCycleID=XXX&QueueID=XXX
        - View a Reporting Dashboard: onbase://dashboard/db/?dashboardId=XXX
        - View a Unity Form Template: onbase://form/create/?TemplateID=XXX&TemplateType=unity
        - View a Folder: onbase://folder/view/?FolderID=XXXXXX
    - **ObjectPop** can be used to direct users (with a URL) to a WorkView object. An OnBase account with sufficient privileges is required. Refer to the WorkView Configuration Guide for more information.
    - **FilterPop** can be used to direct users (with a URL) to a WorkView filter. An OnBase account with sufficient privileges is required. Refer to the WorkView Configuration Guide for more information.
- For more information, refer to:
    - The DocPop MRG (includes information on FormPop and WorkflowPop too)
    - The Unity Form MRG (more info on FormPop)
    - The Pop Integrations topic from OnBase Integrations Overview
    - Workflow - Notifications - DocPop/WorkflowPop
    - Workflow - Notifications - FormPop

WorkView

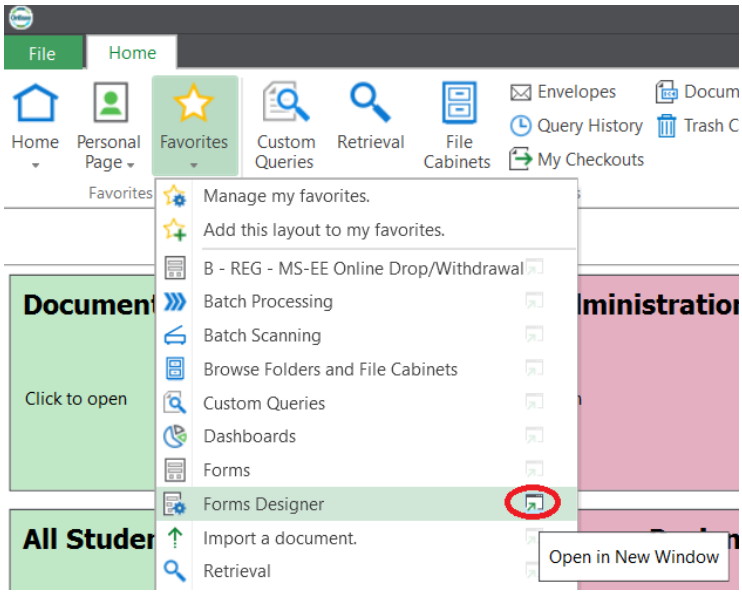
- WorkView is a module that enables rapid development of applications suited for case management.
- For more information, refer to the WorkView MRG and our WorkView Configuration Guide.

Unity Client

- Unity and Office Clickonce URLs must be opened/installed with either IE11 or MS Edge. Chrome and Firefox do not know how to process ClickOnce URLs. Default Edge settings may need to be updated to allow ClickOnce installs.
- The PRD Unity client runs as a service (always running); expand the system tray (near the clock) and right-click the OnBase icon to fully logoff or exit. The non-production versions do not run as a service (and therefore they can be open at the same time as PRD).
- The Unity client runs in User Context, each person on a machine needs to install the client for themselves. The installation cannot be done by desktop support for another user if they (desktop support user) are the currently logged in user.

Tips:

- The built-in Help is very good, click on the question mark at the top right corner.
- The menu tabs are context sensitive, meaning more tabs will open when doing certain activity (ex. the Workflow tab will appear when using workflow). The Home tab is always there.
- Right click on content to see more options in the Unity client.
- Admins can set options for users in their department using User Option Policy Administration.
    - Do *not* set the priority for any department-specific policies higher than the "X - X - All Users Policy" set by UIS.
- Admins can add personal page tiles for users in their department using Tile Group Administration. These can be made mandatory so users cannot remove them from their personal page.
- Adding items to your favorites provides an easy way to open different layouts in a new window. CTRL + N will also open a new window with whatever layout is currently displayed.



- Add commonly used items to your Personal Page for easy access. This is helpful for reporting dashboards, workflow queues, etc. Tiles from the personal page also open in a new window.
- Reporting Dashboard and Data Provider configuration is done in the Unity client and can also be exported and imported between environments through the Unity client.
- The User Option for "Automatically select first related item" still has an effect when the Secondary Viewer (for viewing related items) is turned off. When the document information (keyword/note/cross reference) panel is opened, details related to that

selected related item will be displayed, rather than the values for the item in the primary viewer.

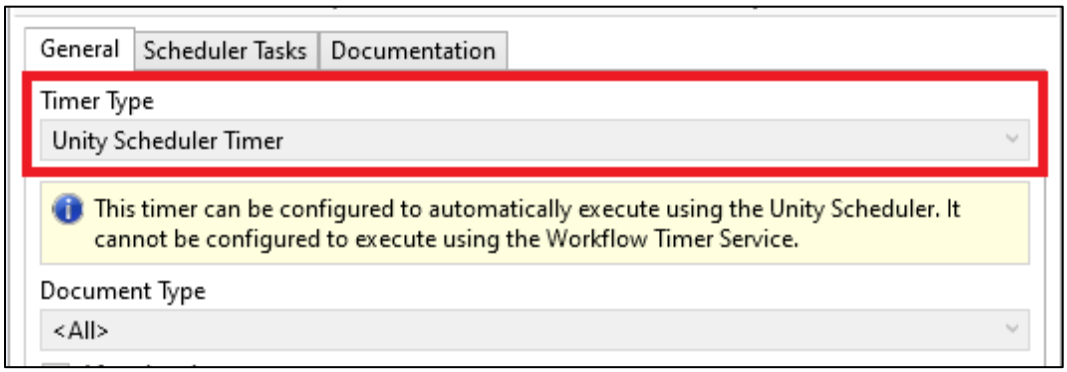
Web Client

Tips:

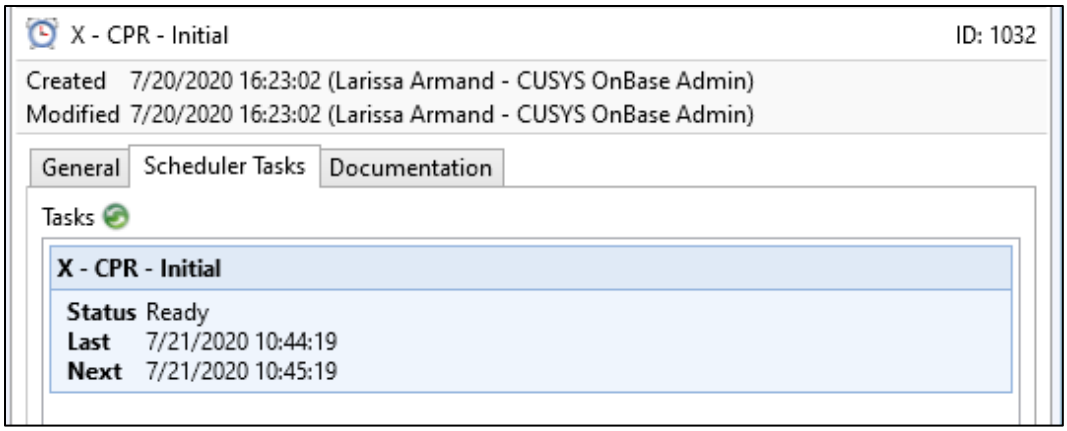
- The web client can be accessed through the campus portals or through PS Related Content/Related Actions, or by going directly to the URL.
- Right click on content to see more options in the Web client.
    - Depending on the file format (ex. PDFs) you will need to right click the document name in the document viewer or results list.
- By default, Document Retrieval is the home page. This can be changed by setting another page as a favorite then editing favorites and selecting the home icon next to the desired home page.

Unity Scheduler / Unity Management Console

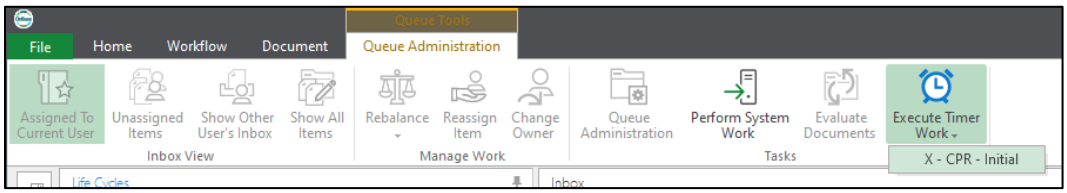
- Unity Management Console is used for scheduling tasks for Workflow timers, scheduled Unity Scripts, scheduled Reporting and more. Some processes can still only be scheduled through the Thick client (auto-commit, DIP/DRIP, etc.).
- Workflow Timers:
    - If using workflow timers, use the “Unity Scheduler Timer’ timer type (not the legacy timer service) when setting up the timer in Studio.



    - After saving your changes in Studio, use the Unity Management Console to configure the timer task to execute the timer on the desired schedule. Refer to the Unity Scheduler MRG or one of the trainings below for details.
    - Then in Studio, verify the task appears on the “Scheduler Task” tab on the timer.

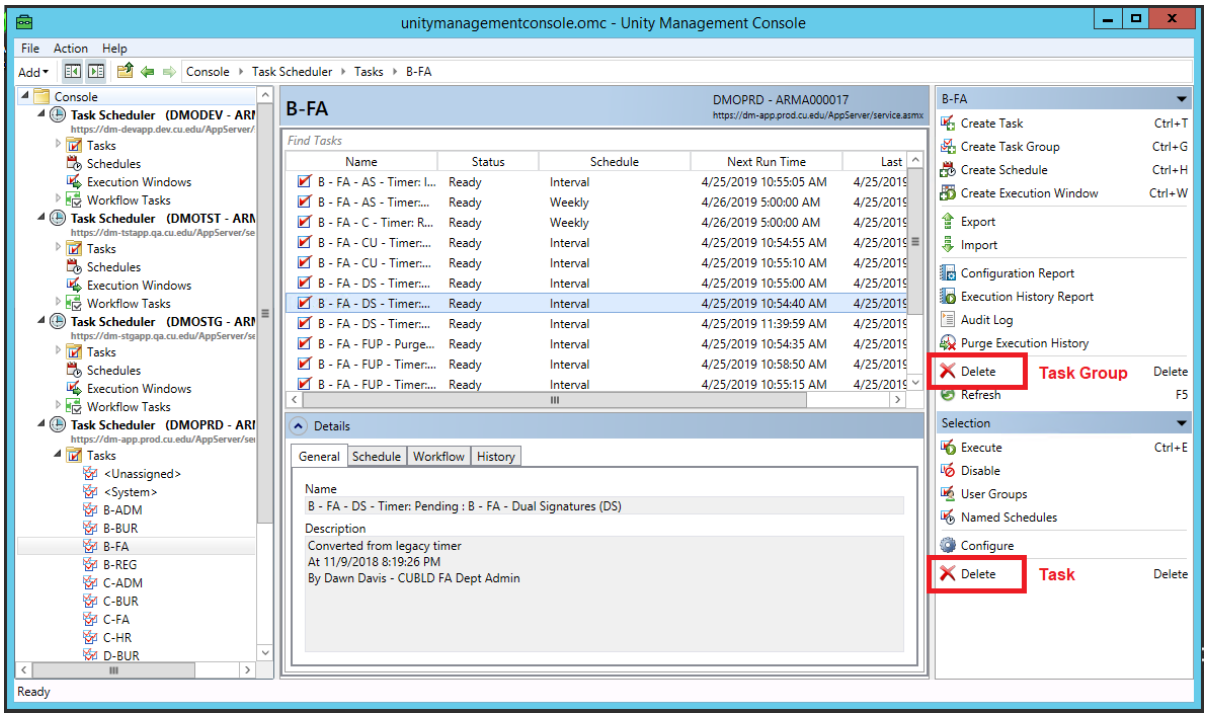


- If no scheduler task is configured, the timer work will not process automatically, but can still be manually executed by users with queue administration privileges.



- The *OnBase SV Workflow Configuration* reporting dashboard includes a list of any workflow timers that are not configured with a scheduler.

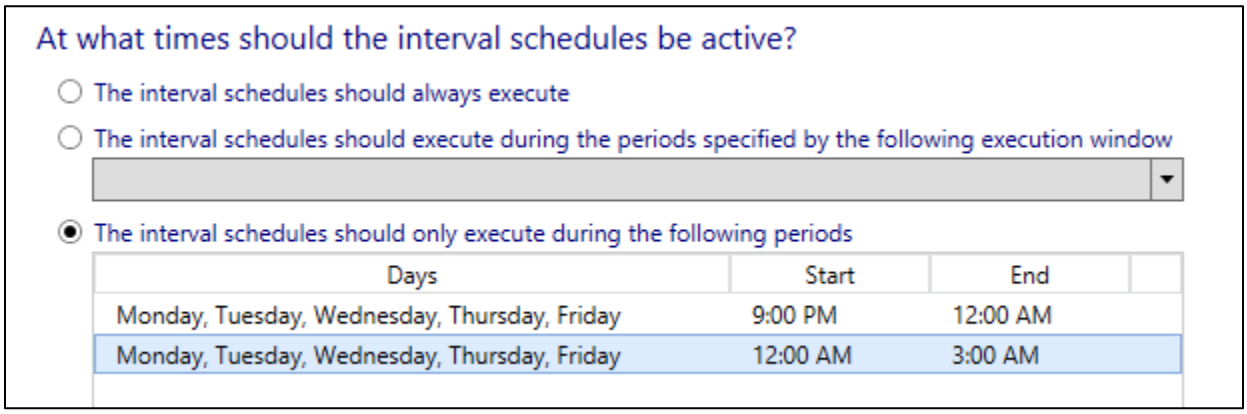
- Task groups allow departments to group their tasks together using an independent service to provide better performance and reliability.
  - Contact UIS for creation of new task groups. A Windows service also needs to be configured to execute the items in a task group.
  - When an item is selected within a task group, two Delete buttons are available. Use care to not use the upper Delete button (which will delete the **task group**) when the lower Delete button should be used to delete the **task**. If the group is deleted, the tasks within it will be moved to the “Unassigned” group but the task group and service associated with it will need to be re-created.



- Other Task Types: In addition to workflow processing, you can also schedule a variety of other configurations using UMC, such as scripts, reports, capture processes.
    - These task types can be used by all department admins:
        - Capture Process
        - Document Composition
        - Document Packets
        - Reporting Dashboards Data Provider Export
        - Reporting Dashboards Report Export
        - Unity Script
        - Workflow
    - These task types should only be configured by UIS:
        - Disk Group Analysis Processing
        - Disk Group Migration Processing
        - EIS Workflow Messaging
        - Email Sending (Distribution Service)
        - Incomplete Commit Queue Processing
        - Incomplete Delete Queue Processing
        - Platter Deletion Processing
        - Purge Execution History
        - S3 Upload Cache Processing

Tips:

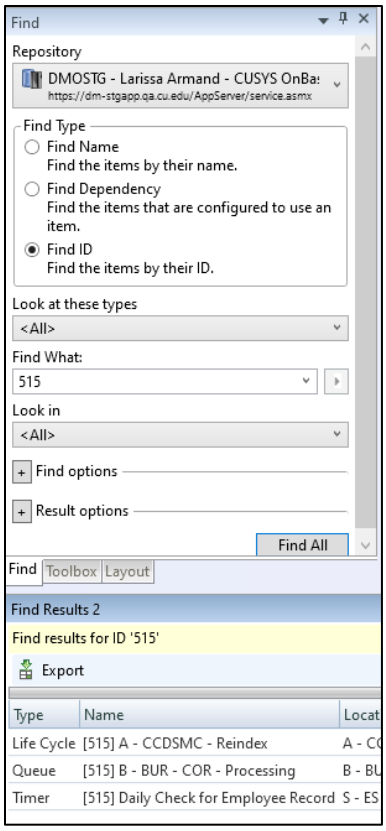
- Hyland's premium subscription includes a hands-on lab for the Unity Scheduler and more information is available in the Unity Scheduler MRG or in the Workflow Timers and Unity Scheduler Introduction course.
- Refer to the Unity Management Console reporting dashboards for an overview of timer execution status and details on all Unity timer processing. This will show any timers in an error status, the next/last scheduled execution, and number of items processed.
- If you want to schedule a task to run overnight, for example, every 15 minutes from 9pm to 3am daily, the time ranges will need to be configured separately since the window is per-day and will stop at midnight. So instead of 9pm - 3am, configure 9pm - midnight & midnight - 3am:



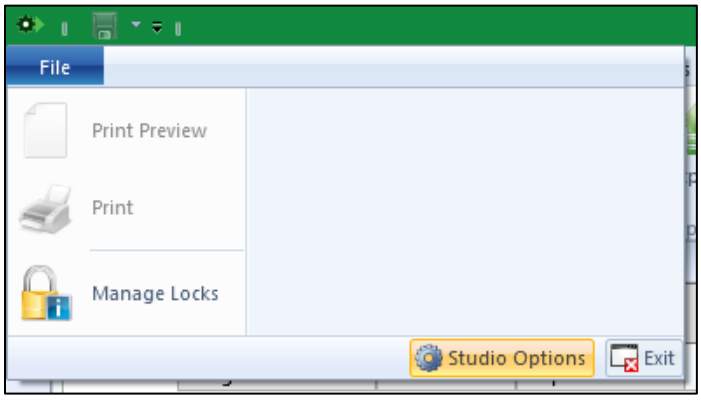
Studio Usage

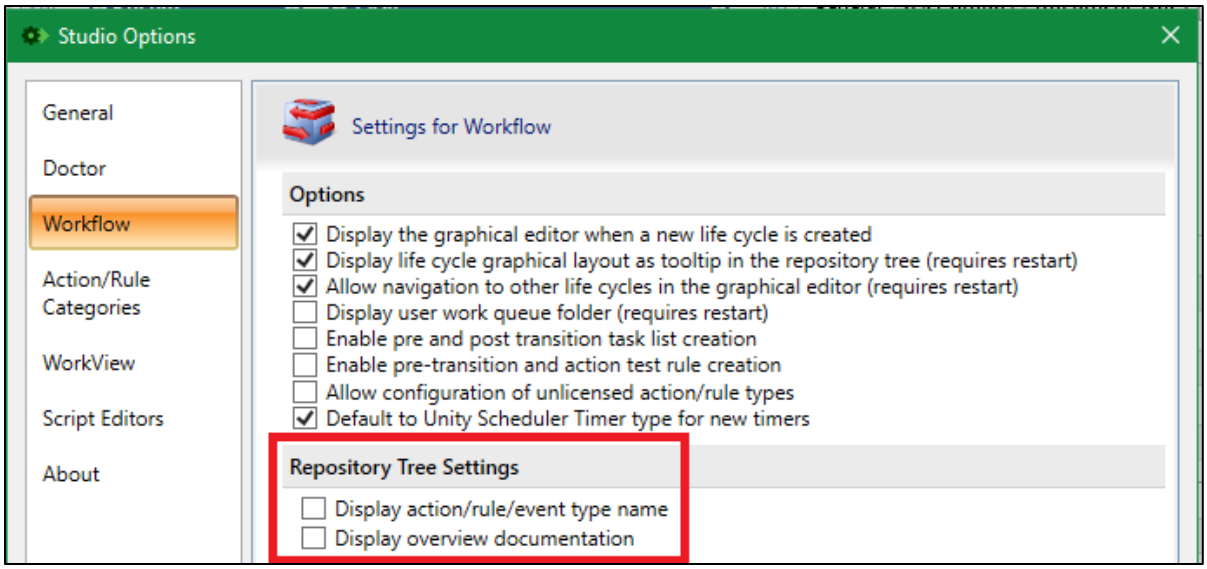
Tips:

- Use the **Find** panel (CTRL + F) to locate life cycles, queues, actions, rules, task lists, and notifications. You can use Find ID to search by an items unique ID number if you have that information from an error message or reporting dashboard. Double click a result in the list to go straight to that item.

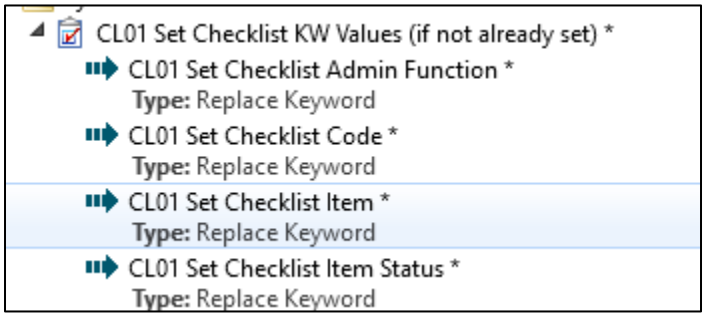


- In Studio, using **Options** (in the File menu), you can enable several helpful features:

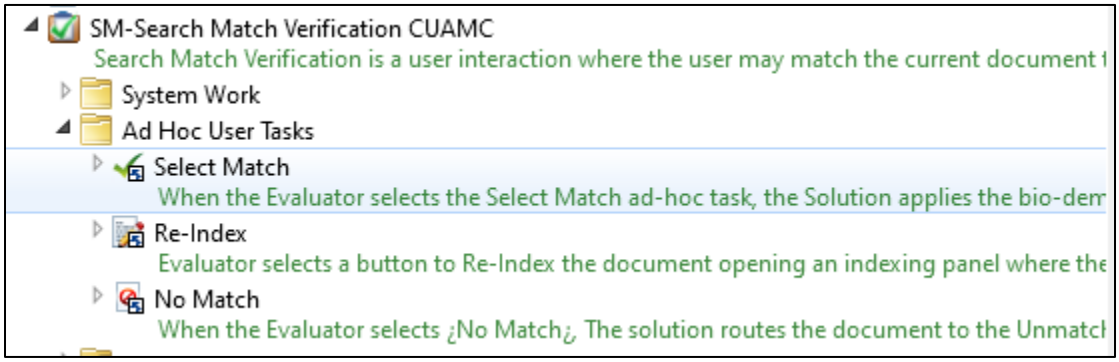




- Display action/rule/event type name:



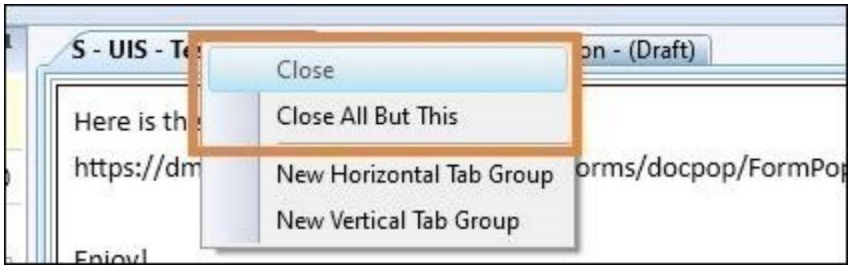
- Display overview documentation:



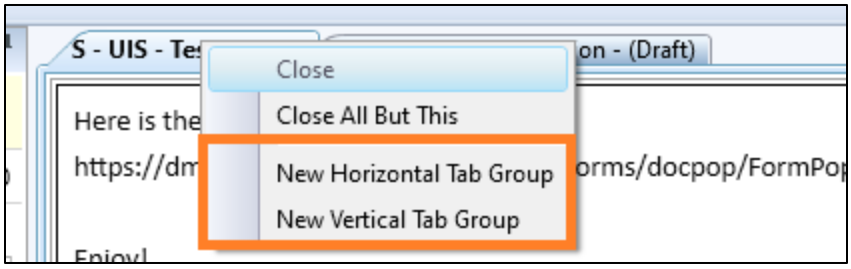
- The **Item Generator** in Studio is helpful for testing workflow and more, you can specify keyword and property values for the items and specify which queue the items should be added to. Items do not need to be added to workflow! This can be really useful for

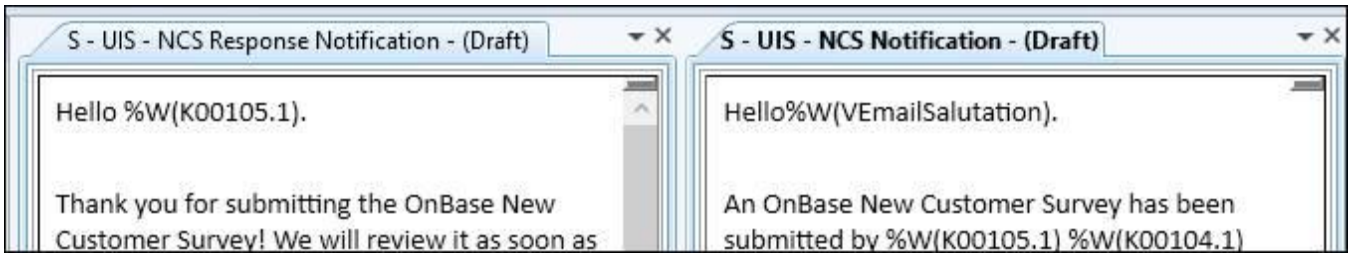
testing Unity forms too. For more information, refer to Configuring Item Generators in the Studio MRG.

- You can right click a life cycle and click **Compare To** to find differences between life cycles. When connected to more than one environment/repository, this is useful to identify differences between production and non-production.
- Right click on a queue to use the **Add/Move Work Items** option or the **Remove Work Items** option.
    - Use Add to copy all items in one queue to another queue.
    - Use Move to take all items out of the original queue when adding them to the destination queue.
    - Use Remove Work Items to take all items out of the selected queue.
    - For more information, refer to Adding, Moving or Removing Work Items in the Workflow MRG.
- Where multiple items are open at the same time, right click a tab for additional options to close multiple items at once:



or display items side-by-side:





ShareBase

ShareBase is a cloud-based file-sharing product by Hyland, similar to products like OneDrive or Google Docs but with improved organizational control over the content. This allows for sharing content within and outside an organization.

Since ShareBase is a Hyland product, it can be integrated with OnBase to allow sharing of content that is currently stored in OnBase and this can become an automated part of your business process. Content uploaded to ShareBase by external users can also be imported to OnBase document types automatically, including keyword values based on the ShareBase folder the content was uploaded to.

Primarily this is done through Workflow, but usage of this product is limited. Please contact UIS if you have a potential use case.