Workiva Partner SOX Solution Implementation Guide

Notices and Disclaimers

Publication notice

This document is valid as of December 1, 2019. Refer to the product Release Notes and the Partner portal for any updates or amendments.

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Introduction

This chapter covers the document purpose, audience and expectations.

Purpose

Workiva provides Wdesk, a flexible, intuitive solution for SOX and internal controls, designed for companies of all sizes. This purpose of this document is to assist the onboarding and implementations teams for Workiva Partners in the four-phased approach of getting their customers correctly set up and configured to successfully use Wdesk.

Note: While this document is not exhaustive, it is comprehensive.

Who is the audience for this document?

The audience for this document is Workiva Partner onboarding and implementation engagement teams, no matter how they are configured or determined. The information in this document will help ensure such teams can leverage Workiva's best practices in planning, design, implementation, testing, deployment, and maintenance of the Wdesk platform.

Note: "Customer" in this document may be an outside party or another team in your organization. "You" and "your" refers to Workiva Partner onboarding and implementations teams.

Expectation

Having completed the Wdesk training for partners, our expectation is that you will be able to use this document as a reference and refresher to that training. This document is structured to reflect the standard implementation process, and walks through both an implementation and how to use the Wdesk database.

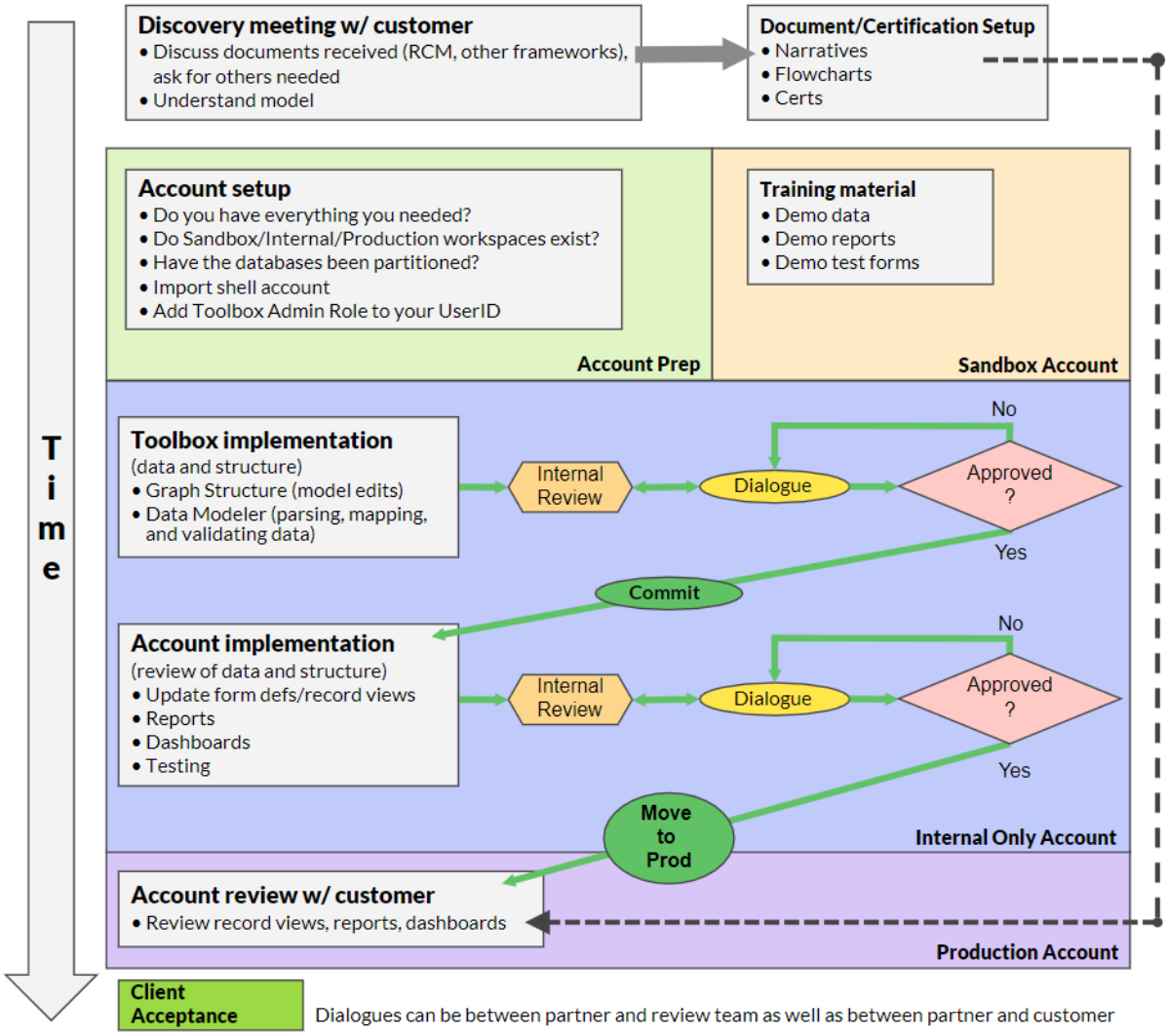
Tip: Refer to the Glossary and term reference for terms used in this document and in Wdesk generally.

Workflow diagrams

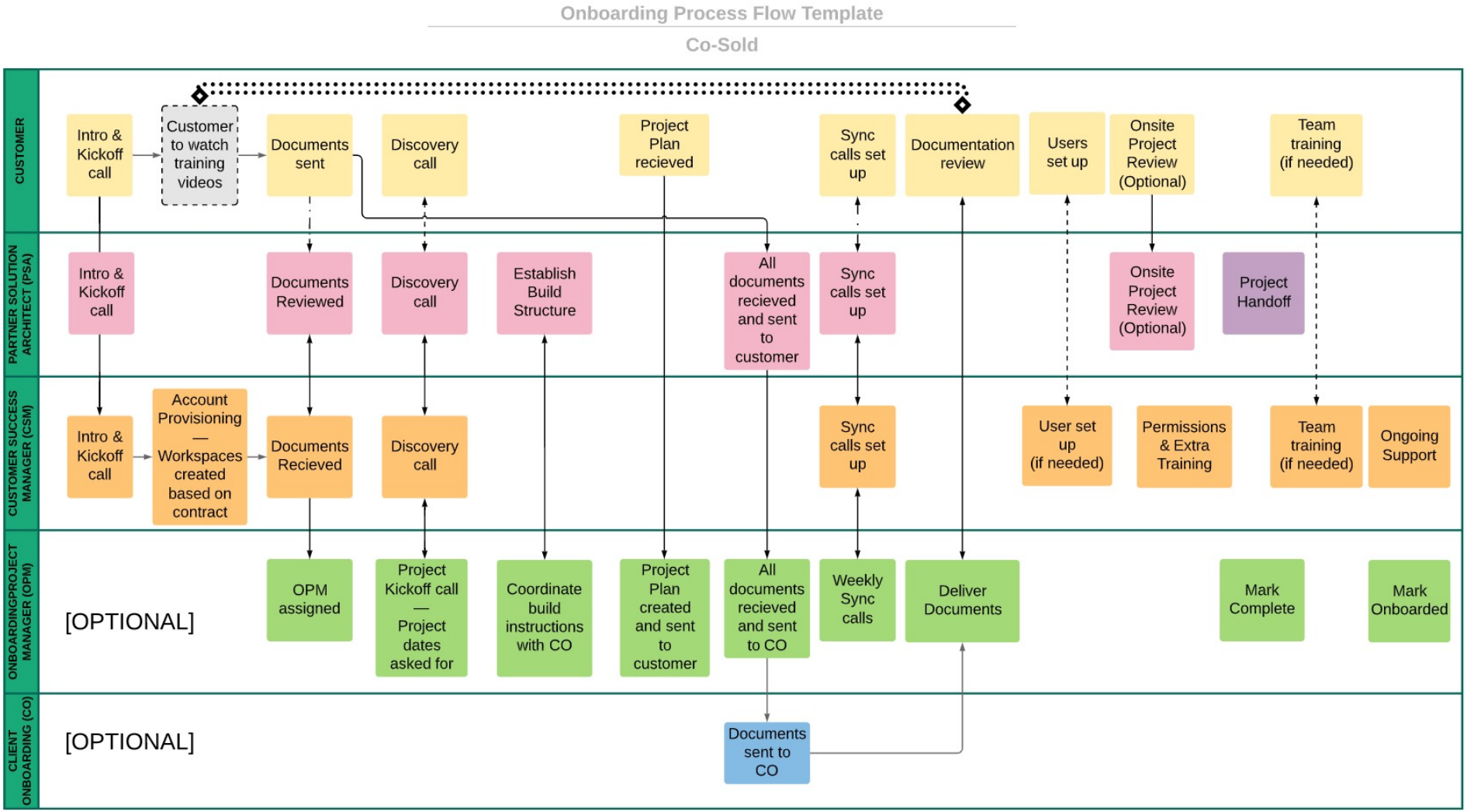
The following graphics provide visual guides to the onboarding workflow processes.

- Integrated Risk implementation task workflow
- Onboarding process workflow for Co-sold projects
- Onboarding process workflow for Managed Service Partner

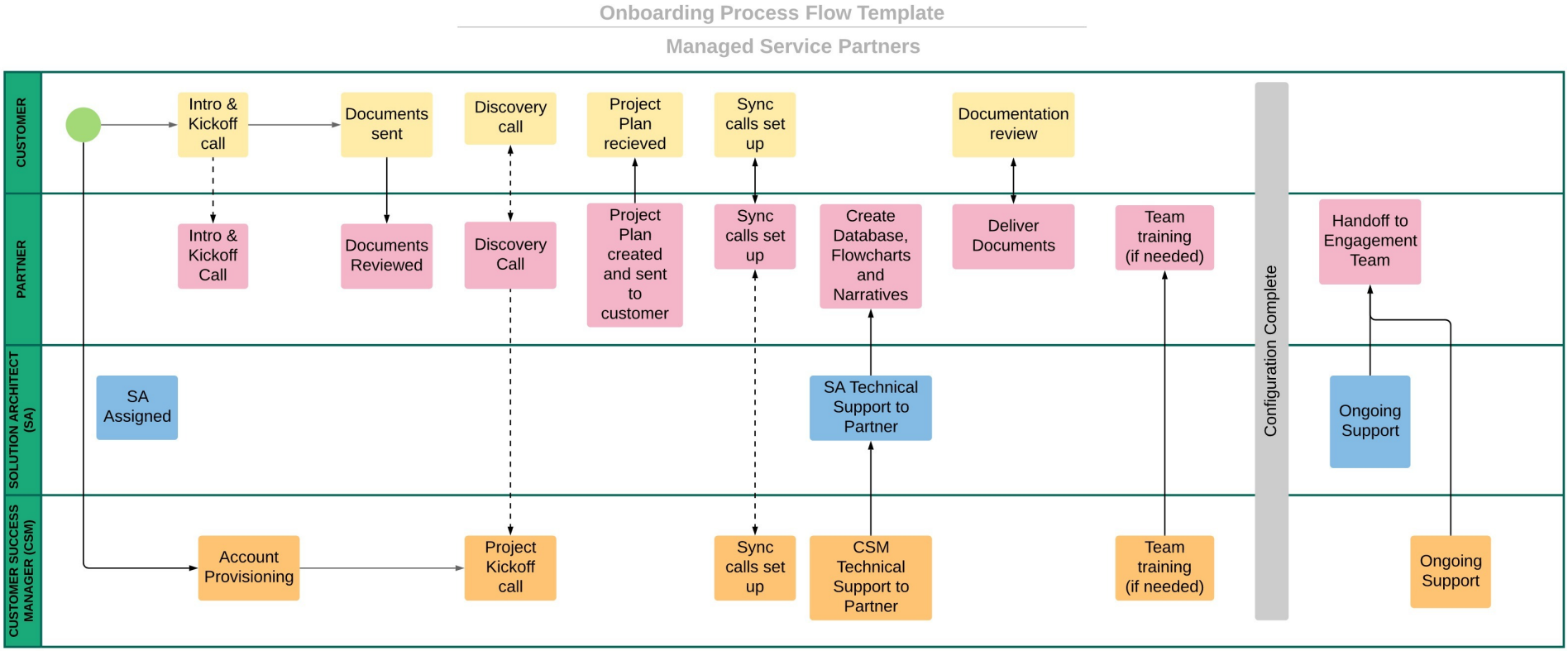
Integrated Risk implementation task workflow



Onboarding process workflow for Co-sold projects



Onboarding process workflow for Managed Service Partner projects



Project Plan, Checklists, and Trackers

This chapter offers the following checklists and trackers to assist you in creating a successful customer onboarding experience.

Project implementation plan tracker

Onboarding a customer involves a lot of documents, processes, and deliverables that need to be tracked. This tracking table is here to help you see what things are (generally) due when, and who is responsible for them. In the pages following this table, there are additional tables for tracking specific items.

Task	Ownership	Tentative Timeline and Onboarding Description
Phase 1: Kickoff		
Getting Started overview call	CSM/ CUSTOMER	This call will cover: • Available Getting Started trainings • Running a canary report to detect items that require resolution before proceeding • How to access the help site • Uploading files into the customer's account. To ensure a successful implementation we encourage customers to attend Workiva's live and recorded trainings and complete the exercises using their sandbox account.

Task	Ownership	Tentative Timeline and Onboarding Description
Account Setup	PARTNER	After the kick-off call, your Onboarding Project Manager (OPM) —if one is part of the contract— will verify that your live account and (if ordered) optional sandbox account have been created, and your Customer Success Manager (CSM) will ensure your users have appropriate access to the accounts. If there is no OPM, then your CSM will handle all of this.
Uploading documentation into the Live Account	CUSTOMER	Your customer must upload their Risk and Control Data, COSO Mapping, Narratives, Flowcharts, and any examples of custom reports into their live account.
Kick-off call	PARTNER/ CUSTOMER	This call is intended to accomplish the following items: • Introduce the Onboarding Project Manager if one is part of the contract. • Introduce the Customer Success Manager. • Discuss the four phases of Onboarding. • Schedule the Getting Started training and Data Discovery meeting with the Workiva Solution Architect (SA).
Phase 2: Document and Database Delivery		
Document and Data Discovery		
Document Discovery for Narrative/Flowcharts	PARTNER/ CUSTOMER	Documents will be set up with Workiva best practices. If additional discussion is needed these can be covered during the weekly touchpoint meetings.
Data Discovery and Process meeting	PARTNER/ CUSTOMER	During this call, review the data submitted for data quality, review the process progress, and discuss any updates needed to proceed to begin parsing, mapping, and modeling.
RCM Data Updates	CUSTOMER	After the Data Discovery meeting, make any updates needed to start the data import.
Test Templates call	PARTNER/ CUSTOMER	During this call, discuss the testing templates that are used to import a starting point of testing information into the account, including test forms, test steps and attributes, testers, and reviewers. These must be completed using the testing templates.
Database delivery		
Internal Account Setup & Review	PARTNER	
Parsing, Mapping, & Modeling data	PARTNER	This should be done in the Internal Only account. Refer to Data parsing and cleaning for more information.
Data Quality Review and Updates	PARTNER	This should be done in the Internal Only account.
Import Configurable Enums and COSO template	PARTNER	This should be done in the Internal Only account.

Task	Ownership	Tentative Timeline and Onboarding Description
Data Modeling and Mapping		This should be done in the Internal Only account.
Import Test Templates in Internal Account	PARTNER	Templates to be imported: Audit Program and Types, Customer Configurable Enums, Test Forms and Phases, Testers and Reviewers, Test Steps and Attributes. **Note:** All accounts come with standard reports similar to the optional sandbox account you received. Some of your customer's data and/or processes may require adjustments for these reports.
Internal Project Review	PARTNER	Our internal review team is committed to ensuring data quality. They do a final check of the data once it has loaded into the account.
Person User	PARTNER	The Person User import is completed after the users have been added to the account. This import ensures tasks created in the database can be tied to the users in the account.
Import Permissions and Access Roles	PARTNER	• Import Permissions and Access Roles • Set up new data types • Permission report for edit rules
Database Delivery in Production Account	PARTNER	Prior to this meeting the SA will import your data into your live account. During this call the SA will discuss the data and any account customizations added into the account.
Create Custom Reports	PARTNER	Some customers request additional reports outside the standard list of reports in the account. Refer to your contract for the number of additional reports available.
Document Delivery		
Document setup	PARTNER	
Narrative setup	PARTNER	Set up your customer's narratives in the Production workspace.
Flowchart setup	PARTNER	Set up your customer's flowcharts in the Production workspace.
Document Setup review	CUSTOMER	Review narrative and flowchart setups.
Document Linking		This happens after the database has been moved to the Production workspace and the Document Setup review. **IMPORTANT:** This step cannot be started until after the Document Setup review.
Narrative linking	PARTNER	Link to your customer's narratives from the database in the Production workspace.
Flowchart linking	PARTNER	Link to your customer's flowcharts from the database in the Production workspace.
Document Linking Review	CUSTOMER	Review linking from database to narratives and flowcharts.

Task	Ownership	Tentative Timeline and Onboarding Description
Certifications (Optional)	PARTNER/ CUSTOMER	Set up certifications.
Phase 3: Project Review and Handoff		
Database Review	CUSTOMER	When reviewing the database, look at the following areas: • Data Validation (using enum dropdowns) • Record Views • Reports • Test Forms Design
Updates Based on Feedback/ Additional Information	PARTNER	Make updates as needed.
Project and CSM Handoff	PARTNER/ CSM	The CSM becomes the main point of contact after the project has been completed. If there are any outstanding items from the implementation, these will be discussed prior to marking the project as onboarded and will be documented for internal reference once you are ready to commence that portion of the build.
Phase 4: Go-Live		
Team Roll-out	PARTNER/ CUSTOMER	The OPM or SA will coordinate details of handoff and project completion.
Additional Training		
Account Admin Training	PARTNER	60 minute training to cover the features of the admin panel.
Wdesk Editor Training (Documents, Workbooks, Presentations, and Certifications)	PARTNER E-Learning	2–3 hours of training which can be broken out by topic.
Wdesk University Controls Management Training	CUSTOMER	Database training is offered online in the wDesk University. There are five training modules: • Roles and Permissions • Navigating the database • PBC Requests • Issues and Action Plans • Testing
Additional Team Training(s)	CSM	If your customer's team desires any additional training, your Workiva Support Team will be able to assist you in locating or developing them.

Implementation overview checklists

The goal of these checklists is to ensure accurate and clean implementations every time. Use them to track your progress.

Documents needed

Ask your customer for the following documents.

Note: This list contains recommended documents, not required documents and there may be other documents not listed here that you will want from your customer.

Status	Document
	Risk Control Matrix in .xslx format
	Key Reports Matrix (this is typically maintained separately from the RCM)
	Walkthroughs
	Narratives
	Flowcharts
	Deficiency Log
	Deficiency Remediation
	Status Reporting
	COSO Mapping
	Business Processes
	Provided By Customer (PBC) list in .xslx format
	Document style conventions

Overall implementation

Use this table to track the progress of the onboarding process. Colors have been used to indicate sections.

Status	Task
Database Implementation	
	Account set up
	Customer workspaces created by Workiva (usually Sandbox, Internal Only, and Production, but may vary by contract)
	In the Internal Only account, the following has been accomplished:
	Toolbox Admin role added
	Shell Account imported
	Database implemented using Database Toolbox
	Model edited
	Data parsed, mapped, and validated using the Data Modeler Experience
Initial Account Review (Review #1) **Internal review before handing off to external reviewer.**	
	Model edits are correct
	Data and relationships have been correctly parsed
	Relationships are correctly mapped
	Data has been validated
Post Review	
	Reviewer's comments addressed
	Data committed into Internal Only account
	Form definitions, reports, and dashboards updated
	New form definitions, reports, and dashboards created (if needed)
	Form definition testing sheets set up
Internal Only account review (Review #2)	
	Confirm that items from previous review have been addressed.
Post Review	
	Reviewer's comments addressed
	Account moved to customer's Production workspace (Export > Import); Internal Only .bin file imported to customer's Production workspace.
Production account as a whole reviewed with customer (Review #3)	
	Customer's comments addressed
	Person/User information imported

Status	Task
Certification setup (optional)	
	Certifications set up and tested.
Documentation setup	
	Narratives and/or flowcharts set up
	Database data linked to narratives and flowcharts
Customer Handover	
	Review outstanding items from the implementation process, make plans to manage, ameliorate, or fulfill these deficiencies or desires.

Document style guide conventions

Use this table to as a prompt and to record the values needed for creating the document layout and appearance. You can use inches, points, mm, lines or percentages as they are supported by the item.

Item	Value(s)
List indents	
Margins (Top, Bottom, Left, Right, and are they mirrored?)	
Heading 1 font, size, and leading	
Heading 2 font, size, and leading	
Heading 3 font, size, and leading	
Body font, size, and leading	
Paragraph spacing and line break rules	
Table column widths	
Hex codes for customer-specific colors	
Header/footer font and size	
Color assignments	

Status of testing templates

Use this table to track the status of the customer template sheets (this can be started earlier in the process). Refer to Testing sheet template tabs for details on each of these sheets.

Status	Template or Task
	Customer import template sheets distributed to customer
	Customer import template sheets returned from customer
	Customer template sheets split for import
	Import sheet files reviewed, approved, and imported
Customer Testing Template sheets	
	3 - PBC and Testing Values
	4 - Test Forms
	5 - Test Phases
	6 - Test Steps and Attributes or TS & A Phase-Specific
	7 - Testers
	8 - Review Plans

Data mapping validations

Use the following checklist to check that all Data Mapping validations have been reviewed and corrected where necessary.

Status	Category	To check
	BlankReificationIDs	Are these justified where there should not be a reification, or does something need to be edited to add these?
	DataTypesWithMultipleUniques	Are multiple unique values set to data types?
	FindDuplicates	Are there any duplicates that should be added?
	InvalidSingleSelect	Are there any relationships that will override?
	RelationshipsBySheet	What are the relationships on each sheet? "RelationshipsBySheet" shows both relationships that are mapped and unmapped. In this validation you should be checking for any unmapped relationships that should be mapped and verifying that the mapped relationships are correct.
	UniqueValuesByDataType	Does every mapped item look correct and no major duplicates exist?
	UniqueValuesByMapByDataType	Use to identify areas from the above validation.

Implementation Process

This process has four phases, described in the following chapters:

Phase 1: Kickoff

Overview

The kickoff phase may be the most important phase when it comes to a successful implementation. In the following sections we will cover getting a Wdesk account set up, the importance of thorough discovery, the potential use of our data template, and getting started with a shell account.

This phase has the following sections:

Setting up accounts

This chapter covers setting up accounts, including Administrative setup.

Overview

A Wdesk organization and related workspace(s) can be set up as soon as Workiva has a signed contract or end client form with an account administrator identified.

IMPORTANT: Workiva Super Admins are the only users that can set up new accounts.

There are two separate processes related to account setup. The first is to set up the organization and its workspaces. Your Customer Success Manager (CSM) or Solution Architect (SA) will work with the Super Admins to create the organization and its workspace(s).

After the organization and workspace are created, the next step is associating the workspace with a database. This association is also called a partition, and is performed by the Workiva CSM or SA. For SOX database set-ups, two separate workspaces are created:

- A production workspace for the end users.
- A test/internal workspace for the data import and database set up.

Administrative setup

After the organization is established, the Workiva CSM or SA creates the required workspaces based on the signed contract. The standard workspaces are *Production*, *Internal Only*, and *Sandbox*; however, the exact workspaces are based on the solutions purchased. Refer to Using workspaces in the *End-User Guide* section for more information.

The CSM first creates users with the Workspace Admin role, then adds the implementation team (typically this would be a Workiva CSM and OPM, and also any Partner representatives) and assigns them Workspace Admin and Workspace Support User roles as appropriate.

IMPORTANT: The Workspace Support User role can only be assigned to Workiva staff, such as a CSM or PSM.

Customer and partner users can now be added to the organization and assigned organization roles. Refer to Working with organizations in the *End-User Guide* section for more information.

Users with Workspace Admin role permissions can add users to the appropriate workspaces and assign workspace-level roles. Refer to Using workspaces in the *End-User Guide* section for more information.

IMPORTANT: You must be set up with the Toolbox Admin Role in order to use the Database Toolbox. The Database Toolbox includes various experiences to help with a database implementation.

Notes

- Non-Workiva users that are in other Wdesk accounts can only be added to additional accounts by Super Admins.
- Existing SEC customers should be consulted when creating the SOX workspaces. Each company should have one Wdesk organization with related workspaces for each of their purchased Wdesk solutions.
- Audit, ERM, and other integrated risk solutions must be set up in separate workspaces. However, they will most likely share the same backing database.

Project discovery

This chapter covers the following material:

- Data cleaning
- Discovery call preparation
- Risk Control Matrix questions
- Testing questions
- Certification and Control Assessment questions
- Issues and Deficiency questions
- Quarterly presentations and Audit Committee slide questions

Overview

Discovery is a key phase in the data onboarding process, as it requires a lot of interaction with your customer and establishes the baselines for multiple decisions. This step helps you understand the data being provided, the structure of the company or organization, and how all the pieces fit together. This section provides background and reference material for the Discovery process.

We strongly recommend that you begin setting up Flowcharts and Narratives as part of the Discovery process because they can be completed without the database being set up. Having the narratives and flowcharts built before the database is complete is helpful for a successful and timely implementation, as building these first will allow linking to start as soon as the database set up is complete.

Data cleaning

As company control data is often collected and organized over time by different teams, this may lead to data consistency issues in the Risk Control Matrix (RCM) or other documents where this data is recorded. Adopting Wdesk enables your customers to improve both data consistency and process standardization for their internal control documentation as well as improve their control testing processes.

There are significant benefits to reviewing and cleaning control data so it is in a uniform format before pulling it into the Wdesk database. We recommend that your customers use the adoption of Wdesk as an opportunity to review their data so that they start with the best control data possible, as experience has shown us that starting with clean and organized data leads to better process automation and reporting in the future. As the data is never perfect and will require cleaning, you are likely to have multiple conversations with your customer to resolve discrepancies.

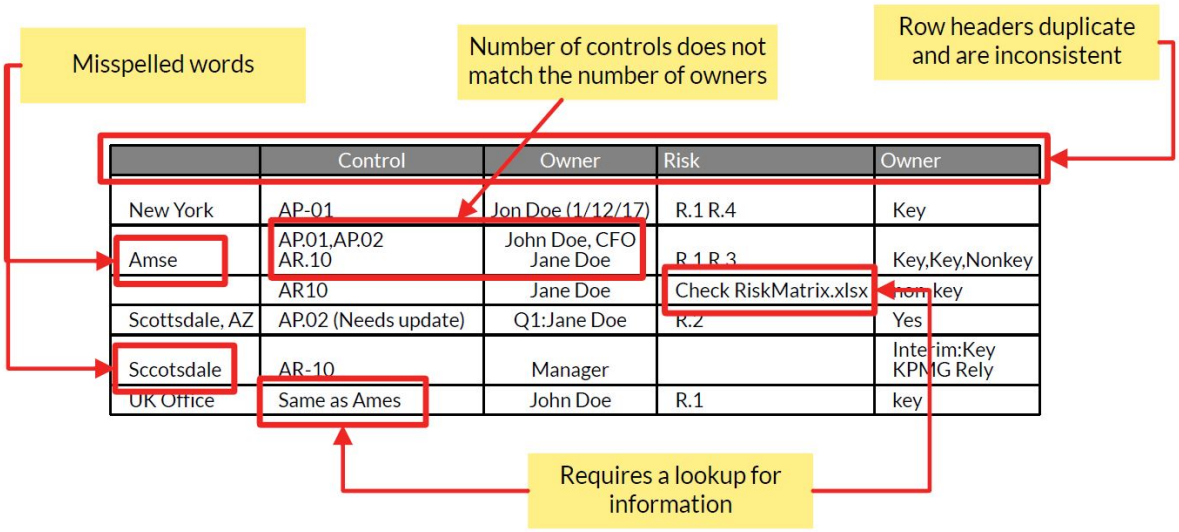
IMPORTANT: You must get all customer spreadsheets in .xslx format.

When you start to bring on board your customer, the first thing you will do is a discovery call to review the RCM data. Once that is completed the two questions you need to ask yourself are:

- Do I understand the data?
- Does the model need to be modified?

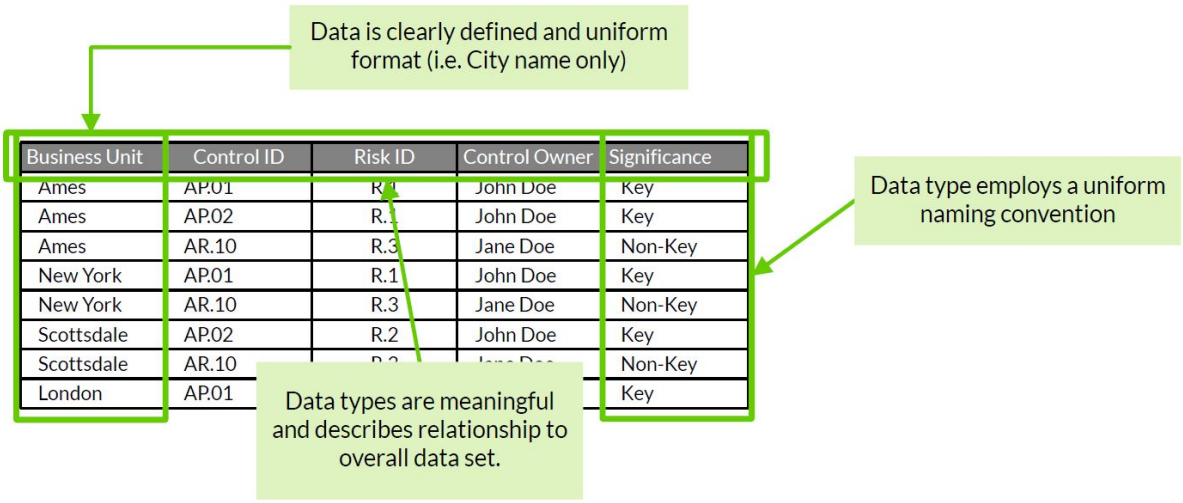
The following images show the difference between non-uniform (dirty) data and uniform (clean) data.

Non-Uniform Data



	Control	Owner	Risk	Owner
New York	AP-01	Jon Doe (1/12/17)	R.1 R.4	Key
Amse	AP.01,AP.02 AR.10	John Doe, CFO Jane Doe	R.1 R.3	Key,Key,Nonkey
	AR10	Jane Doe	Check RiskMatrix.xlsx	non key
Scottsdale, AZ	AP.02 (Needs update)	Q1:Jane Doe	R.2	Yes
Sccotsdale	AR-10	Manager		Interim:Key KPMG Rely
UK Office	Same as Ames	John Doe	R.1	key

Uniform Data



Business Unit	Control ID	Risk ID	Control Owner	Significance
Ames	AP.01	R.1	John Doe	Key
Ames	AP.02	R.2	John Doe	Key
Ames	AR.10	R.3	Jane Doe	Non-Key
New York	AP.01	R.1	John Doe	Key
New York	AR.10	R.3	Jane Doe	Non-Key
Scottsdale	AP.02	R.2	John Doe	Key
Scottsdale	AR.10	R.3	Jane Doe	Non-Key
London	AP.01	R.1	John Doe	Key

Discovery call preparation

ACTION: Obtain your customer's data.

ACTION: Review data prior to the call to better understand what questions to discuss with your customer.

ACTION: Send your customer the discovery questions prior to the call for their review and preparation.

Note: The discovery process may take multiple calls or meetings before you fully understand your customer's entire process.

Documents needed

Request the following documents when you start the discovery process. Be sure to check in with the customer during the process to see if there have been any updates.

- Risk Control Matrix (RCM) data
- Test sheet template example
- Control Self Assessment/Certification Letter
- Issues and Deficiency Data
- Quarterly Presentation/Audit Committee Slides and supporting Excel files and data
- COSO Mapping

TIP: Refer to the Statement Of Work (SOW) for additional documents that may need to be requested.

The following sections provide questions and identify SOX discovery process issues.

Note: This is not an exhaustive set of topic questions, just commonly-asked ones.

- RCM questions
- Testing questions
- Certification and Control Assessment questions
- Issues and Deficiency questions
- Quarterly Presentations and Audit Committee Slide questions

Risk Control Matrix questions

Use the following questions to make sure that potential RCM issues have been addressed.

- Do you have all the needed data?

  If not, explain to your customer how having all the consolidated data will ensure a timely and accurate database setup. This is in their best interest.
- Is the company multi-entity or multi-location?
- What additional data types need to be added?
- What additional properties need to be added?

ACTION: Confirm the following items with your customer:

- The Control column is up to date.
- How is each Key Control to be tested?
- How are Controls that are tested shown?

  This will help identify if the "control assessment" data type will be needed.
- Is there a Control Assessment?
  Examples: Significance, Control Risk Rating, Magnitude, etc.
- Are the Controls marked "Key" and "Non Key"?
  Alternatively, do they use an indicator that shows significance?
  Example: Key = "Yes"

ACTION: Discuss Hierarchy — Confirming this understanding is crucial for accurately creating your customer's database. This could take multiple calls and potentially require an on-site visit if this is complex or confusing for your customer. For example:

  - Risks > Controls > Process > Business Segment?
  - Controls > Risks > Sub-process > Parent Process > Business Segment?
- Does the RCM data provided include controls for Business/Finance, ITGC and/or ELC's?
- Is there any hierarchy for inheritance?
- Are controls tested at multiple locations?
  - Is there one test sheet per control?
  - Are there multiple test sheets for a control?

  This will help identify if a based-on or localization control setup is applicable — if applicable, there may be a need to add computed properties for local controls back to the model.
- Identify potential InvalidSingleSelect issues
  - Are controls mapped to multiple processes?
    - Are risks mapped to multiple processes?
    - If applicable, is risk rating tied to the control or the actual risk?

ACTION: Discuss Data Quality issues — These points should also be mentioned during the kickoff presentation. The following are needed, and are applicable to all data columns.

- Consistent delimiters
- Consistent Stakeholder name format
- Consistent Stakeholder titles
- Reports
- Systems
- Consistent use of full terms rather than letters or short forms for Automated, Manual, Key, and Non-Key identifiers
- Consistent spelling of values within each column. For example:
    - Frequency — Annual or Annually or Yearly
    - Preventive or Preventative
    - Tom Jefferson or Thomas Jefferson or T. Jefferson

ACTION: Discuss Reports and Dashboards

- Review the list of reports to determine which report should be built.
- What additional data is needed for reports or dashboards?
- Does all mapping exist? If no, use mini-templates.

COSO Mapping Questions

- Does your customer map controls to principles, components, or points of focus?
- Can you parse/map the current state, or do you need to provide the COSO mapping template?

Testing questions

Use the following questions to make sure that potential testing issues have been addressed.

ACTION: Request an example of a test sheet(s) from your customer.

ACTION: Schedule a call to discuss the Import Testing sheets as soon as possible in order to prompt your customer to start completing those documents. The earlier these sheets are shared with your customer the less likely they are to push back on completing them.

- Is testing done at the corporate or local level? (This will determine if additional controls will need to be created.)
- How are walkthroughs and the Test of Design performed?
- Are these done separately or in combination?
- Is a "Test of One" performed or is another method used?
- Does your customer "Test Of Design" test form match your "Test Of Operating Effectiveness" test form?
- Does your customer use an external auditor firm's template?

- How many phases of operating effectiveness testing are performed?
- Are Business Controls and ITGC controls tested differently?
- What term does your customer use for each phase? For example:
  - Test of Design, Interim, Rollforward, Remediation?
  - Walkthrough, Interim, Year-end?

Certification/Control Assessment questions

Use the following questions to make sure that potential Certification/Control Assessment issues have been addressed.

- Is this assessment applicable?

  ACTION: Review the SOW to confirm the following items:

  i. What method does your customer need to assess by? Typical options are:
     - By process
     - Letter certification
     - A link to a user-centric report
     - By control

  ii. At what frequency does your customer certify?

  iii. Are model-adds necessary to accommodate this assessment?

  Note: If model adds are needed, or your customer assesses by control, refer to the Quarterly Control Certification [One Response] and Quarterly Control Certification [Multiple Responses] for model adds.

- Do we have the needed language for the certification letter?

  ACTION: Request your customer provide language to put in the certification letter.

- Can my customer update and create certifications by themselves?

  ACTION: Work with the CSM to provide your customer with certification training. This should be a collaborative effort aimed at empowering your customer to update and create certifications themselves.

Issues and Deficiency questions

Use the following questions to make sure that potential issue/deficiency issues have been addressed.

ACTION: Review issue/deficiency template provided by your customer.

- Does your customer want the issue/deficiency data imported into the database?

  If so, schedule a separate discovery call to better understand this data with your customer.

  We recommend that you first work to fully understand the main RCM data before spending a significant amount of time doing discovery around your customer's data issues, as this will help prioritize your efforts.
- Does your customer want to import prior open or closed issues, or prefers to start off fresh in Wdesk?

Quarterly presentations and Audit Committee slide questions

Use the following question to make sure that potential issues for quarterly presentations or Audit Committee slides have been addressed.

- Does your customer have access to Wdesk spreadsheets?

  If they do not, they will need access to Wdesk spreadsheets to provide an optimal experience.

  If they do, does your customer want their Presentation/Audit Committee slides set up in Wdesk? In this case, request their slides and the supporting Excel files. If they do not, no action is required.

  Note: This setup requires creating a Wdesk spreadsheet that has a section connected to a report from the database. Once the spreadsheet is created, and the sheet is connected to the appropriate report in the database, and the formulas/data are set up, link the spreadsheet to the audit committee slides in the editor. Work with your OPM and CSM for assistance with the document setup of the slides in the editor.

The SOX data template

This chapter has the following sections:

Overview

Through the use of Excel, various teams, process inheritance, and other reasons, data can become very messy. In order for your customer to have a good experience, you need to ensure that the data going into the database is structured correctly. In some instances, your customer will be able to review, organize, and edit their data with the structure they currently have. In other cases, their data may need such a major cleanup that they require help getting started.

The SOX Data Template (available in the Partner Portal) can help your customer organize their core data. This template enables your customer to consolidate their data from various locations in an organized manner. This in turn reduces the time needed to get their data into the database and improves the efficiency of the data onboarding process (fewer errors and less rework). The template can be used initially when your customer is just starting to populate RCM data, or later if your customer needs to consolidate the data they already have created. The other advantage to using the template is that it provides your customer a glimpse of the different data sets that are available in the database. The idea of the SOX data template is that your customer can complete it instead of providing an RCM.

SOX template tabs

There are two classes of SOX data template tabs: Visible and Hidden. By default, Visible tabs can be seen by your customer; Hidden tabs can not, as they contain formulas or reference material required for mapping that does not need to be seen. They can be used as a data source and mapped.

The following tables have a quick description of each tab and its purpose. Each tab is not required to be completely filled out, as not all customers need all tabs.

Visible tabs

The following tabs can be seen by your customer. These tabs will need to be filled out for most cases.

Template tab	Purpose
People	To import user's full names, titles and departments. This also populates the Person stakeholder columns to ensure data consistency.
Control	To import the controls, control attributes, control assessment, control scoping, control stakeholders, and sub processes in which they are performed. For the columns for stakeholders, we recommend that only Person or Title cells be populated.
Process	To import process attributes, process assessment, process stakeholders, and hierarchy. It's possible that your customer may have more than one level, so please instruct them on adding columns to the far right of the table.
Control Objective	To import control objectives, if your customer has them.
Risk	To import the risks, risk attributes, risk assessment, risk stakeholders, and sub-processes in which they are performed.
Mitigation	To connect Controls, Risks, and Control Objectives. It is meant to have one line per possible 3-way relationship.
Drop Downs	To identify custom dropdown values within the account. It is pre-filled with our recommended enumerated lists, but your customer can update this to have exactly what they want.

Hidden tabs

These tabs are aimed at special use cases; they only need to be filled out if relevant.

Template tab	Purpose
Control in Shared Process	To map controls if they are within multiple processes.
Shared Sub Processes	If Sub Processes are within multiple Processes, your customer will use this tab.
Locations	If the control is performed in multiple locations, your customer must update/ expand the header rows with the names of the locations.
Systems	To import system attributes, assessments, stakeholders.
System Mapping	To map controls to systems.
IPE	To import document (IPE) attributes, assessments and stakeholders.
IPE Mapping	To map controls to IPE.
FSLI Mapping	To map controls to financial statement line items, your customer must update or expand the header row.
COSO Mapping	To map controls to Points of Focus.

Reviewing the completed template

Because data onboarding uses Microsoft Office™ products, there is the chance that your customer may alter the template without understanding the consequences of this action. The most common change customers make is to add columns. If columns have been added, make sure that you understand the customer's needs and desires for the content of these columns, so you can map these items correctly (just as you would in the discovery process).

Note: Using templates does not mean that all the work is automatically correct; using templates reduces the amount of work and rework required, but it does not eliminate it. Items still need to be parsed, mapped, or modeled specifically for your customer.

Using the shell account

This chapter covers the following aspects of the shell account in Wdesk:

Overview

The shell account contains the most up-to-date model and form definitions. It includes Form Definitions, Reports, Dashboards, and the full model, as well as the necessary records for required system types. It also includes the editing rules for unique experience reports.

Shell account reports

You will find two groups of reports in the shell account; those defined by Workiva, and those defined by your customer. Workiva-defined reports include:

- Action Plans
- Control Listing
- Controls without Risks
- COSO Point of Focus Coverage
- COSO Point of Focus Gaps
- Issue Listing
- My Controls (User-centric)
- Requests
- Risk Listing
- Risks without Controls
- Test Matrix

The following reports should only have Admin permissions:

- [Permissions] Review Plans
- [Permissions] Time Tracking
- [_Admin Only_] Advanced Permissions - Data Listings
- [_Admin Only_] Advanced Permissions - Reports
- [_Admin Only_] Advanced Permissions - by User
- [_Admin Only_] Suggested Edits
- [_Admin Only_] Person No User

Workiva-defined standard reports

The following standard reports are created as part of every implementation.

Action Plans

Short description	List of action plans based on issues found during testing.
Long description	Report used to track steps taken and timing of deficiency remediation. As action plans are tied directly to identified issues, the report also includes key details of associated issues.
Columns	Action Plan ID, Action Plan Summary, Steps Taken, Target Date, Closed Date, Action Plan Status, Action Plan Owner, Action Plan Associated Audit, Issue ID, Issue Summary, Issue Description.

Control Listing

Short description	List of control and attributes.
Long description	Expansive report of all the direct attributes from control. Your customer may not have all the attributes; missing ones can either be left on the report or removed.
Columns	Control ID, Control Summary, Control Description, Classification, Assertion, IPO, COSO, Automated/Manual, Fraud Control, Safeguard of Assets, Preventive/ Detective, Segregation of Duties, MRC Control, Risk of Control Failure, Frequency, Location, Relies on System, Relies on Document, Regulates System, Regulates Document, Stakeholder, Stakeholder Title, Audit Program, Significance, EA Reliance

Controls without Risks

Short description	List of controls that are not mitigating risks.
Long description	If there are controls that are not mitigating risks, they may not be needed.
Columns	Control ID, Control Summary, Control Description

COSO Point of Focus Coverage

Short description	List of COSO coverage by Point of Focus.
Long description	Report showing the COSO hierarchy with control tied to Point of Focus. This may need to be updated if your customer does not go down to the Point of Focus level.
Columns	COSO Component*, COSO Principle*, COSO Point of Focus, Control

(*) indicates a field that must be populated as it is a required relationship.

COSO Point of Focus Gaps

Short description	List of gaps in COSO coverage by Point of Focus.
Long description	Report to determine if there are any Points of Focuses not covered by a control. This may need to be updated if your customer does not go down to the Point of Focus level.
Columns	Point of Focus

Issue Listing

Short description	List of issues found during testing.
Long description	Report listing deficiencies found during testing. Report shows key details around identified issues including source, severity, and response from management.
Columns	Issue ID, Date Reported, Date Found, Resolution, Summary, Description, Misstatement, Root Cause, Recommendation, Management Response, Issue Type, Issue Status, Issue Severity, Audit Program, Test Form, Issue in Control, Issue in Process, Reported By, Identification Source

My Controls (User-centric)

Short description	List of controls a specific user is tied to through the Control Stakeholder relationship.
Long description	Report listing controls and related attribute data tied to a specific user through the Control Stakeholder relationship.
Columns	Control ID, Control Summary, Control Description, Classification, Assertion, IPO, COSO, Automated/Manual, Fraud Control, Safeguard of Assets, Preventive/ Detective, Segregation of Duties Appropriate, MRC Control, Risk of Control Failure, Frequency, Location, Relies on System, Relies on Document, Regulates System, Regulates Document, Stakeholder, Stakeholder Title, Audit Program, Significance, EA Reliance

Requests

Short description	List of PBC requests.
Long description	Report listing details of requests and their status to provide a report for external audit, or to have a view of the request statuses
Columns	Audit Program, Test Phase, Request Title, Request Instructions, Request Due Date, Request Status*, Request Type*, Control ID, Control Description, Provided By, Requested By, Approved By (*) indicates a field that must be populated as it is a required relationship.

Risk Listing

Short description	Report showing risk information.
Long description	Report can be expanded to include more risk assessment information from standard model, but will not include calculations.
Columns	Risk ID, Risk Title, Risk Description, Assertion, Location, Audit Program, Assessment Type, Risk Rating

Risks without Controls

Short description	List of unmitigated risks.
Long description	Report listing risks that are not tied to any controls. If there are risks that are not mitigated properly, there may be higher potential for adverse effects.
Columns	Risk ID, Risk Title, Risk Description

Test Matrix

Short description	Report of test information
Long description	Report showing test phase status and conclusion. This can be expanded to include additional test information.
Columns	Audit Program*, Control*, Test Phase, Tester, Status, Effectiveness Conclusion, Conclusion Summary (*) indicates a field that must be populated as it is a required relationship.

Admin-only reports

The following reports require Admin role permissions.

[Permissions] Review Plans

Short description	Report required for non-admins to create review plans.
Long description	This report is required and no edits should be made other than to apply editing rules. Non-admins are not able to create review plans without this report.
Columns	Test Form [DO NOT EDIT]

[Permissions] Time Tracking

Short description	Report required for non-admins to add time tracking.
Long description	This report is required and no edits should be made other than to apply editing rules. Non-admins are not able to add time tracking without this report.
Columns	Test Form [DO NOT EDIT]

[_Admin Only_] Advanced Permissions - Data Listings

Short description	Admin-only report used to allow non-admins to see all data enum options.
Long description	Report to grant non-admins view access to all enum records in case that option is not included in a report they have access to.
Columns	Data Listing Report, User/Group with ViewAccess

[_Admin Only_] Advanced Permissions - Reports

Short description	Admin-only report used to grant users/groups access to reports.
Long description	Report to apply viewer permission to reports; editing rules still need to be applied if users need to be able to edit data.
Columns	Report Name, User/Group with View Access

[_Admin Only_] Advanced Permissions - by User

Short description	Admin-only report showing a user's report permissions and editing rules based on assigned roles or groups.
Long description	This report shows each user's admin status, what group access role applies to them, what reports they have access to, and the editing policy that applies to them with the editing policy description.
Columns	User, Admin, Via Role, Report, Editing Policy

[_Admin Only_] Suggested Edits

Short description	Admin-only report showing number of suggested edits added to a data record form.
Long description	This report will help managers/admins in recognizing where suggested edits are outstanding.
Columns	Data Type, Record, # Suggestions

[_Admin Only_] Person No User

Short description	Report showing Person records not tied to a user.
Long description	Report to help populate the Person User (Account and Database Import) file.
Columns	First Name, Last Name, Email

Customer-defined standard reports

These are reports not included in the shell, but should be created by you after the shell is installed.

- **RCM (Risk Control Matrix)** — This is information that shows how risks and controls are tied together, and is a report that almost every company will have. This report also includes standard risk and control information, usually some hierarchy with process, and possibly stakeholder information. Every customer will be slightly different.
- **IPE Report (Information Produced by Entity)** — Information produced by your customer. IPE is information presented in reports used in the operation of a control. It also relates to reports run and data extractions to support audit tests. This is sometimes referred to as electronic audit evidence (EAE).
- **Financial Statement Report —** Standard Financial statement (if available). This report typically looks at coverage of assertions to make sure there is full coverage for financial statements.

Shell account dashboards

When you import the shell account, several reports and dashboards are automatically created; these serve as a starting point for your SOX implementation.

Things to know:

- Dashboards and reports will appear blank until your customer data is imported.
- Included dashboards and reports are a starting point, not the finish line.

Using the initial dashboards as inspiration, work with your customer to discover their needs and add or remove any dashboard and content accordingly.

Working with shell account dashboards

Shell account dashboards show an overall account picture; these can be expanded on to include filters to show a specific snapshot of a process or location. For example, you can modify dashboards by adding and deleting charts and tables, as well as changing the data parameters for charts and tables. You can also create completely new dashboards.

Refer to Working with dashboards in the *End-User Guide* section of this document for more information on working with dashboards.

Included dashboards

The table below outlines the dashboards Workiva recommends you start with for new customer implementations.

Dashboard	Purpose	SOX PMO	Testing Manager/ Reviewer
SOX Program Overview	Outlines the scope and status of the Global SOX Program.	✓	·
SOX Test Planning	Provides context to properly plan for any test phase.	✓	·
SOX Testing Status	Tracks the project management status of testing for any test phase.	✓	✓
SOX Deficiency & Remediation	Outlines all deficiencies and their status of remediation for any test phase.	✓	·
COSO Coverage Summary	Outlines how the SOX Program stacks up against COSO recommendations.	✓	·
SOX Audit Committee	A source for all charts and tables for SOX Audit Committee Reporting.	✓	·
SOX Tester Monitoring	Provides context to Testing Manager surrounding individual Tester performance.	·	✓

SOX Program Overview dashboard

Purpose: Outlines the scope and status of the global SOX program.

Included content	Charts to consider adding
Chart: • Risks by Audit Program • Risks by Risk Level • Risks by Location • Controls by Location • Controls by Classification • Controls by Frequency • Controls by Manual/Automated • Controls by Preventive/Detective • Controls by Significance • Controls by Stakeholder • Controls by EA Reliance • Controls that are Fraud-Related • Controls that are MRC-Related • Controls by Risk of Failure	Additional charts that bring to life data records/fields specific to your customer: • Count of Controls by Process/Sub-Process • Count of Controls by business unit • Count of Outstanding Deficiencies by Audit Year, Deficiency Level, and action plan status • Controls by Audit Year • New Controls (Controls by Date Added) • Decommissioned Controls (Controls Decommissioned by Decommissioned Date) • Design Gaps by Audit Year

SOX Test Phase Planning dashboard

Purpose: Provides context to properly plan for any test phase.

Included content	Recommended additions based on data

Table:
• Controls without Risks
• Risks without Controls
	Test Phase Controls:
	• That have been assigned a tester
	• That have yet to be assigned a tester (example: n/a)
	Count of Controls by Control Type (example: key/non-key, automated/manual):
	• That have been assigned a tester
	• That have yet to be assigned a tester (example: n/a)
	Count of Controls by Frequency:
	• That have been assigned a tester
	• That have yet to be assigned a tester (example: n/a)
	Count of Controls by Risk Level:
	• That have been assigned a tester
	• That have yet to be assigned a tester (example: n/a)
	Other:
	• Count of Controls by Tester (Color grouped by key/non-key controls)
	• Sum of Estimated Test Hours by Phase
	• Deficiencies by Effective Remediation (but Not Validated) date
	• Design Gaps by Remediation Status
	  ▪ Filter: System Generated
	  ▪ Filter: Non-System Generated

SOX Testing Status dashboard

Purpose: Tracks the project management status of testing for any test phase type.

Note: It is likely you will want a dedicated dashboard for each test phase type, depending on your customer's preferences. (This may require a "save as" with a filter in the query to produce a report only showing testing status for a specific test phase type).

Included content	Recommended additions based on data
Chart: • Audit Program Testing Status • Testing Status by Test Phase • Testing Status Summary • Issues by Audit Program • Issue Status Summary • Issues by Issue Type	• Count of Controls by Tester (Color Grouped by Testing Status; filtered by Testing Period) • Count of Controls by Process (Color Grouped by Testing Status; filtered by testing period) • Count of Controls by Test Status (Grouped by Control Type (eg. Key Control or Risk Level)) • Count of Controls by Due Date (Grouped by Status; Filtered by "Testing Status IS NOT Complete"; sorted by due soonest) • Demonstrates the # of control currently being tested and their relation to their due date. • Count of Controls by Risk Level • Count of Controls by Test Result (Pass/Fail) • Count of Controls by Test Review Status • Deficiencies by Effective Remediation (but Not Validated) date

SOX Deficiency and Remediation dashboard

Purpose: Outlines all deficiencies and their action plan status of remediation for any test phase.

Included content	Recommended additions based on data
Chart: • Count of Issues by Audit Program • Count of Issues by Issue Severity • Count of Issues by Action Plan Status • Count of Issues by Action Plan Owner Table: • Issue Summary • Action Plan Summary	• Count of deficiencies by process (color grouped by deficiency level) • Effective Dates of Remediation for non-validated deficiencies (this is the date when a deficiency is ready to be re-tested/ validated)

SOX Audit Committee dashboard

Purpose: A source for all charts and tables for SOX Audit Committee Reporting.

Included content	Recommended additions based on data
Chart: • Issue Status Summary • Action Plan Status Table: • Issue Summary • Action Plan Summary	• Count of Controls by Audit Year (Color Grouped by Testing Status) • Count of New Controls by Audit Year • Count of Decommissioned controls by Audit Year • Distribution of Control Count by Audit Year Test Results (For example, Pass/Fail). Your customer may want a separate chart by process • List of deficiencies by deficiency level (For example, significant deficiency) and action plan status.

SOX COSO Coverage dashboard

Purpose: Outlines how the SOX Program stacks up against COSO recommendations.

Included content	Recommended additions based on data
Chart: • COSO Component Coverage Summary • COSO Principle Coverage Summary Table: • COSO Coverage Summary	• Count of Controls by COSO Component (Color Grouped by Test Result Status: Pass/Fail) • Count of Controls by COSO Principle (Color Grouped by Test Result Status: Pass/Fail)

SOX Tester Monitoring dashboard

Purpose: Provides context to the Testing manager for tester performance.

Included content	Recommended additions based on data
Chart: • Controls by Tester • Testing Status by Tester	Status of Tester Progress in a Phase of Testing: • Count of Control Tests by Status (Color Grouped by Tester) • Distribution of Control Tests by Tester • Number of Issues identified by each tester • Number of Testing-Completed Controls by tester

Supplemental dashboards

The following three dashboards help you provide insight into the control, testing, and review processes.

Dashboard	Description
My Control/Process Owner	Provides Control/Process owners a single view of all their controls, which they can edit right on the spot.
My Testing	Provides testers with valuable insights into their testing process beyond what is provided in the Testing Experience.
My Reviewer	This provides reviewers with valuable insights into their reviewing process beyond what is provided in the Testing Experience.

Setting up the shell account

To import the shell account:

1. Add `?debug` to the end of the URL, and refresh the page.
2. Under **Create**, select **Import Account** and select the .bin file.

You are now ready to use the Database Toolbox to make model updates and add data.

For information on this, refer to Understanding and working with models.

IMPORTANT: As the shell account is updated by Workiva from time to time, it should be downloaded fresh each time to ensure that your customer is using the most up-to-date version. Contact your Workiva Support Team to get updates.

Phase 2 : Document and Database Delivery

Overview

A majority of the implementation work is completed in this phase. After completing a thorough discovery you can now begin building the documents and database based on the customer's desired outcomes. In this section we will take a deep dive into our database model and the tools used to import the customer's data into Wdesk.

This phase has the following chapters:

- Database Toolbox
  - Understanding and working with models
  - Understanding graph structure and using Graphical Edit
  - Using data mapping
- Template Sheets
  - Importing template sheets for mapping
  - Using the customer testing template
- Preparing the database
- Working with form definitions
- Setup beyond the database

Database Toolbox: Understanding and working with models

This chapter has the following sections:

Overview

The SOX model used for Wdesk database implementations is based on extensive research of SOX programs and discussions with existing SOX customers that provides a "best practice" environment for setting up a SOX program in the Wdesk database. It is built using database components that create a structured model that allows for flexibility.

The Graph Structure Experience allows you to see the YAML, Graphical Edit, and Visualization views of the model structure. Each are different ways of viewing the model so that you can understand both individual pieces and the overall structure.

Base SOX data

It's important to understand how your customer's SOX program is structured and how it fits into the Wdesk model. Basic SOX data is the information that is provided by customers in a typical Risk Control Matrix (RCM) or Risk Assessments document. This needs to be gathered initially in order to get a true understanding of the data. Testing and subsequent imports are not reliant on the base data and can be imported at later points in time.

Customers can provide data in multiple ways, for example:

- A single unified RCM
- A single RCM broken up by process
- Multiple RCMs broken up by process or business unit or location

Note: Customers may also provide separate risk assessments or testing information.

The SOX Data Template (available from your Workiva Support Team) can be used to help customers understand the model and see additional areas where they may wish to add data.

Model components

The SOX data model is constructed using graph modeling ideas and terminology. As these are different from those used for spreadsheets or other unstructured forms, we encourage you to read these thoroughly.

Comprehending the following four definitions is the core of understanding our data model.

Data Type — This is the generic 'what' or the 'thing' we are talking about — a building, a person, a control, etc.

Edge or Relationship — These show how one data type is connected to another data type; or the allowed connections between instances of a data type.

Properties — These are attached to a Data Type and help describe the 'thing' in more detail. This could be the eye color, hair color, and height for an individual — what creates uniqueness. For example, "Person" is the generic form of 'thing'. To create multiple unique Persons, we can duplicate a Person record and set properties that make each duplicate unique.

Node, Vertex, Instance, or Record — These all indicate a specific example of a Data Type. For example: Empire State Building, John Smith, C.AP.01, etc. For additional information on terminology in Wdesk and data modeling, refer to the Glossary and Term reference.

Data modeling

Data Modeling is the process of building a schema or structure to record data; one view of the data model is the columns and worksheets of a spreadsheet. The problem is that the spreadsheet has essentially only one view (the one that the data was entered in), and it is "unstructured" — in this format there are no rules that have to be followed. A database model consists of datatypes, properties, and relationships. This permits a much more diverse and complex set of views to be created. You may also find "structure" or "schema" used to refer to a model.

Elements

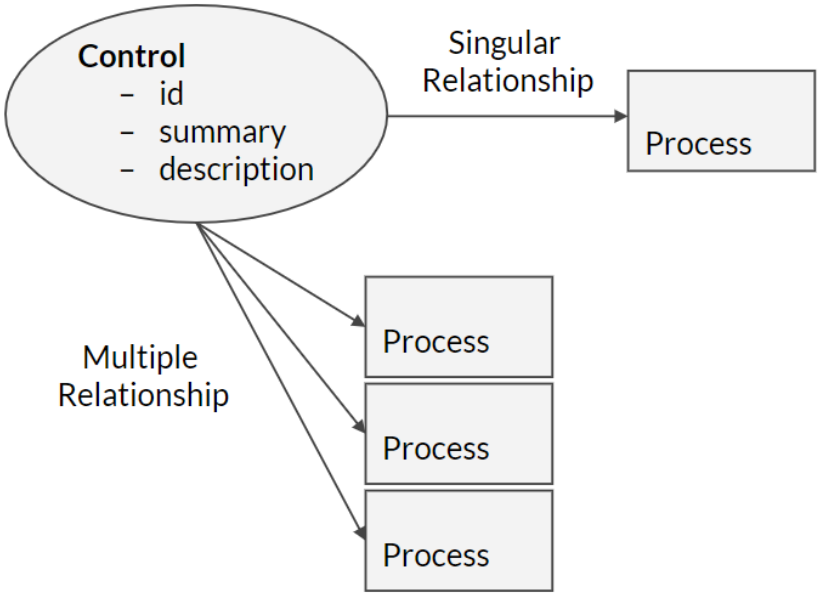
Data types are the core element of the Workiva model. They are templates for a single instance in the domain of interest. In terms of graph modeling, they are sometimes also called "nodes" or "vertices".

A Control datatype includes a unique ID and a set of **Properties** (date, description, group, etc.). Recording a Control in the database creates an instance of the Control datatype. A Control datatype can have multiple instances. If the datatype was "Fruit", then Apples,

Pears, and Peaches would all be instances of that datatype. Beyond the inherent capacity of the database, there is no practical limit on the number of properties a datatype might have, or the number of datatypes that can stored in the database.

A **Relationship** is a record of the connection between two data type instances. A Process instance can have relationships with zero, one, or many Control instances. Wdesk allows users to view each Control-Process relationship from either the Control or the Process perspective. A model may have a Control "performed in" relationship to a process. Each instance of a "performed in" relationship means that a particular Control instance is associated with that Process instance. In terms of the model, Relationships can be referred to as "edges".

When defining a data model, you can specify that a relationship can be *Singular* (where a Control has a relationship with only one Process), or *Multiple* (a Control can have a relationship with more than one Process). Generally the relationship from Control to Process is one-to-one, while there can be a separate relationship from Control to Process that is one-to-many. This is illustrated in the following image.



While relationships by default are set to "multiple", there are certain instances when it does not make sense to use them. When defining a hierarchy, we want to use a singular relationship so that a child cannot be tied to more than one parent. In our standard model, we also define the Control-to-Process relationship as singular. If we were to use a multiple relationship in either of these instances, we run the risk of compromising the reported data.

Properties vs. Datatype-Relationship pairing

As a general principle, if a quantity is likely to be used multiple times with the same meaning every time (for example, "packages"), our preference is to store it as a datatype with a relationship rather than a property.

For example, as "Automated" or "Manual" is likely to be tagged on multiple Controls, we would recommend creating a datatype of "Automated-Manual" that would have multiple instances of "Automated" and multiple instances of "Manual". This has the further advantage that the term is only logged once and then referenced, so if the language needed to be changed, changing it in the datatype will automatically change it in all instances in the database.

Two other reasons for modeling information using a datatype-relationship schema rather than properties is first that the datatype-relationship schema allows a customer to better control data validation and how the information is made available (for example, as a pick list), and second, that while a Property can have only one data input, a datatype can have multiple properties. For example, the datatype could have a "nature" Property (Automated or Manual) plus a "description" property that explains why that value was chosen.

Model structure

While the Workiva database can support most models and related datatypes and relationships, using a standard model (for example, for SOX) provides a coherent set of datatypes, properties, and relationships that is "tuned" for the needs of that reporting. The model configuration is contained in a YAML entity. Both the Full Model and Model by Type tabs show a view of the model, however, if changes they should be made using **Graphical Edit** in the Database Toolbox.

The YAML entity contains many datatypes, along with their Properties and Relationships. The table below shows a sample Control entry; every entry will have a similar format.

Sample	Description
`Control:`	Datatype
`  properties:`	Properties section
`    - name: "id"`	Internal/system property name
`      label: "Control ID"`	Displayed property name
`     required: true`	Is this a Required property? (absence = optional)
`      type: string`	Property type (string, number, data, etc.)
`    - name: "dateEffective"`	Internal/system property name
`      label: "Effective Date"`	Displayed property name
`      type: date`	Property type (string, number, data, etc.)
`  edges:`	Edge (relationship) section
`    performed_in_process`	Internal/system relationship name
`      target: Process`	Target datatype of process
`      label: "Performed in Process"`	Relationship name displayed on Source (Control)
`      inverseLabel: "has control"`	Relationship name displayed on Target (Process)

Datatype classes

Wdesk has two main classes of datatypes: Visible and Hidden.

Visible datatypes

Visible datatypes are the ones shown to the user and are listed on the **Data** tab, and include Action Plan, Control, Control Objective, Issue, Process, and Risk among others.

Hidden datatypes

Hidden datatypes are not shown by default, but can be made visible by adding `?debug` to the end of the URL and refreshing the page. When this is active, these are marked with an asterisk.

IMPORTANT: Use `?debug` for implementation purposes only. Customers do not need to use this.

The Hidden datatype has several classifications.

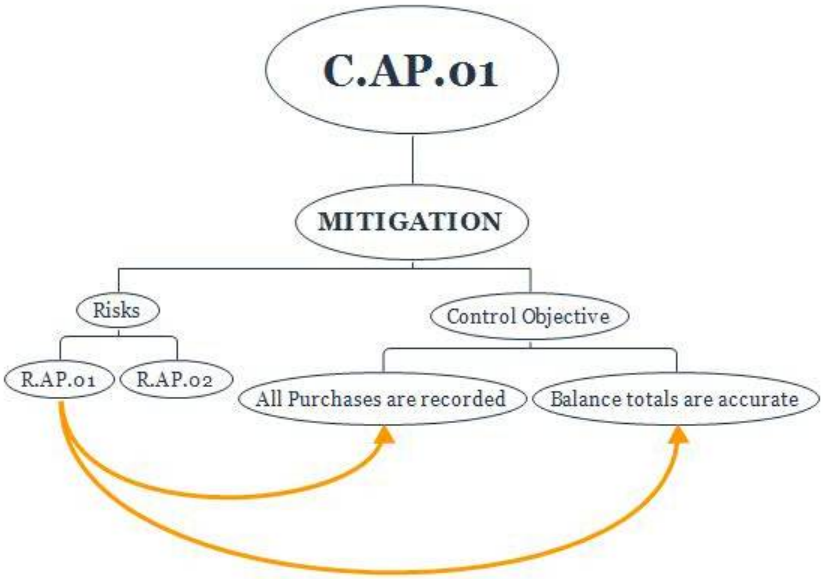
- **Configurable enumerations** are datatypes such as "Automated" or "Manual" where there a small list of fixed types that are being used as targets. The expectation for this is that these will generally be set once by an administrator and not changed.
- **System** datatypes are used by the system to perform various background operations. They should never be edited.
- **Child** datatypes are used for functions that only make sense in the context of another datatype. For example "Test of Control" only makes sense if there is a Control for it to test. Wherever possible, Child datatypes should be managed from within the context of the parent datatype.
- **Library** and **Framework** datatypes provide a mapping of Controls to framework. For example, the COSO framework is a standard part of Governance, Risk and Compliance (GRC), so the model must account for this framework.
- **Reification** datatypes exist to provide grouping for other datatypes. For example, in an Risk Control Matrix, a Control might mitigate a Risk while also ensuring a Control Objective. Instead of creating multiple direct relationships, we recreated (reify) this three-way grouping using a Reification datatype of "Mitigation".

  Reification datatypes are not convenient as the target of a relationship; the natural expectation is to look "through" the reification to the other datatypes being connected. This is often done with a table, so that a Control tied to multiple instances of mitigation would be shown in a table as having a row for each mitigation instance, with separate columns for the Risk and Control Objective seen "though" the mitigation.

In the following table and image, Control C.AP.01 has three mitigation instances:

- Risk R.AP.01 with the Control Objective "All Purchases are recorded".
- Risk R.AP.01 with the Control Objective "Balance totals are accurate".
- Risk R.AP.02 with no Control Objective.

Control	Risk	Control Objective
C.AP.01	R.AP.01	All Purchases are recorded
	R.AP.01	Balance totals are accurate
	R.AP.02	



Property Types

There are two kinds of property types (primitive or computed), and both are different from data types. Property types specify the type of information that a property contains, and support interface changes, data validation, and application behavior.

Primitive types

Primitive types are the basic elements used to define the permitted information. The following table identifies the supported primitive types.

Type	Description
`string`	General text
`number`	General number
`integer`	Number without decimal places
`date`	Calendar date
`bit`	Binary "true" or "false"

Computed types

Computed property types are automatically generated based on existing data in the graph. As an example, COSO, which has an "id" and "value" property, can also have a "name" property that joins the two into a single unit. A computed property can also "traverse" the model to look for properties in other instances. An example of this would be a Control that has a "process_name" computed property that looks through the "performed_in" relationships to find a Process instance, and then returns the "name" of that Process. The "process_name" computed property is helpful when the customer wants to see both the subprocess and the process on the control form.

For more information on computed property types, including examples, refer to Using computed properties.

Best Practices for working with models

In order to successfully map and model a customer's data, there are a few best practices that should always be followed. The data types included in the core model should be used for customers where relevant data exists.

In some instances, new columns will need to be created in the parsed file and filled with data to create unique values. These are new data type instances created to ensure that the data fits with the model and the structure. Using the **Mapping Workflow** function on the **Data Mappings** tab in the Database Toolbox will create automatic parsing steps to create these unique values.

The following table shows a brief listing of common data types that are added to data sets during parsing and why most are used. These data types are all included in the core model and should be used for all customers. There are many use cases and more data types in the model than shown here.

Data Type	Explanation
Process Type	This will help with refined validation (smart filters). For example, mega-process, process and sub-process.
Stakeholder Type	This will help with refined validation (smart filters). For example, owner, reviewer, etc.
Mitigation	Concatenation of risk, control and control objective is necessary to have a unique ID for each mitigation. The actual ID doesn't matter, but concatenation is a best practice.
Process Stakeholder	Concatenation of stakeholder type, person, title and process is necessary to have a unique ID for each owner role. The actual ID doesn't matter, but concatenation is a best practice.
Control Stakeholder	Concatenation of stakeholder type, person, title and control is necessary to have a unique ID for each owner role. The actual ID doesn't matter, but concatenation is a best practice.

Data Type	Explanation
Control Assessment	Concatenation of control and audit program assesses significance (whether something is tested or not). This lets you recognize controls that can change significance and (for example) can capture year or year changes. **Required:** Audit Program (example: "SOX 2050") **Required:** Audit Program Type (example: "SOX") The Control Assessor role can be used if there is internal and external significance.

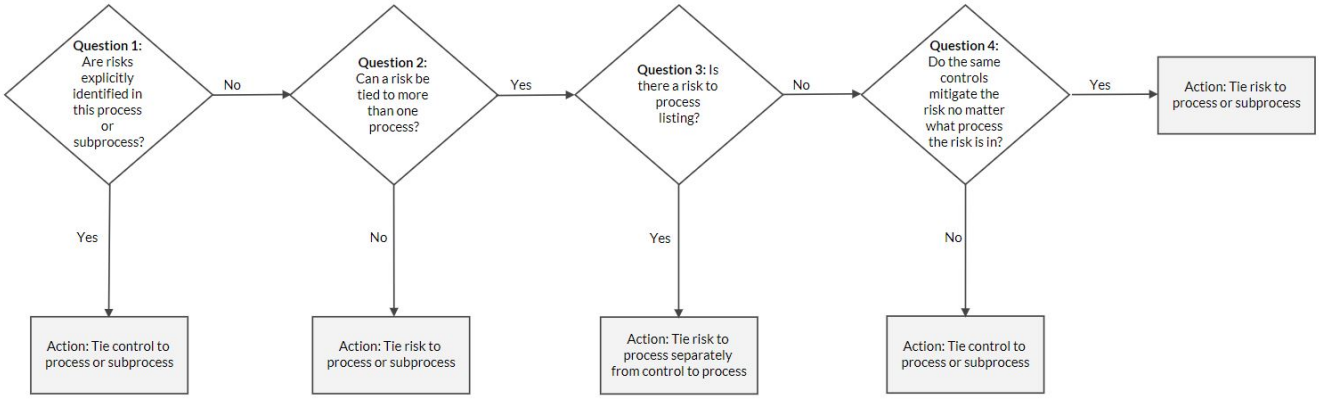
Relationships

There are certain relationships that should be included as best practice to map the above data types. The following table shows these relationships and provides a brief explanation for why these relationships should be added.

Data Type (Source)	Relationship (Target of)	Explanation
Audit Program	Audit Program Type	Audit Program should always be tied to an Audit Program Type. This helps to ensure testing functionality works properly.
Audit Program Type		Audit Program Type will always need to be created. This ties to Audit Program and also ties to Test Phase Types during the testing import process.
Control	Location (optional)	Refer to the Location entry in this table for more information.
Control Assessment	• Audit Program • Control • Significance	Control Assessment should be mapped when the customer has significance or control rating data. It should always be tied to an Audit Program, Control, and Control Assessment Type.
Control Stakeholder	• Control • Control Stakeholder Type • Person • Title	Control and Control Stakeholder Type must always be targets. Person or Title should be selected depending on what data exists. Only one can be selected.
Location		Determine what location means for the customer. If everything is in the same location, tie risk, control, process, etc. to location. If there are difference locations, create a risk location column, control location column and the like so you can tie risk/control/etc. to specified locations. **Best Practice:** Ask how location is determined or specified (For example, Control Location may not be necessary).
Mitigation	• Control • Risk • Control Objective	Depending on the data in the RCM, establish Mitigation>Control, Mitigation>Risk, and Mitigation->Control Objective relationships.

Process	Process Type	If there is more than one level of process, this data type will be added more than once. The most commonly used edge type is a parent_process to sub-process to process. A relationship based_on_process will be used to tie common processes if they have an overarching process (for example, entity level and corporate). Smaller processes must always point to a bigger process; that is, a sub-process must be the source pointing to the process as the destination. Refer to the note following this table for more information, including Best Practices.
Process Stakeholder	• Process • Process Stakeholder Type • Person • Title	Process and Process Stakeholder Type must always be targets. Person or Title should be selected depending on what data exists. Only one can be selected.
Process Type		Process Type should be created when more than one level of process exists. This will help with reporting once the data is in the database.

Note: To determine whether you should tie the process to a Risk or a Control, ask the customer. You can use the following decision tree as a guide.

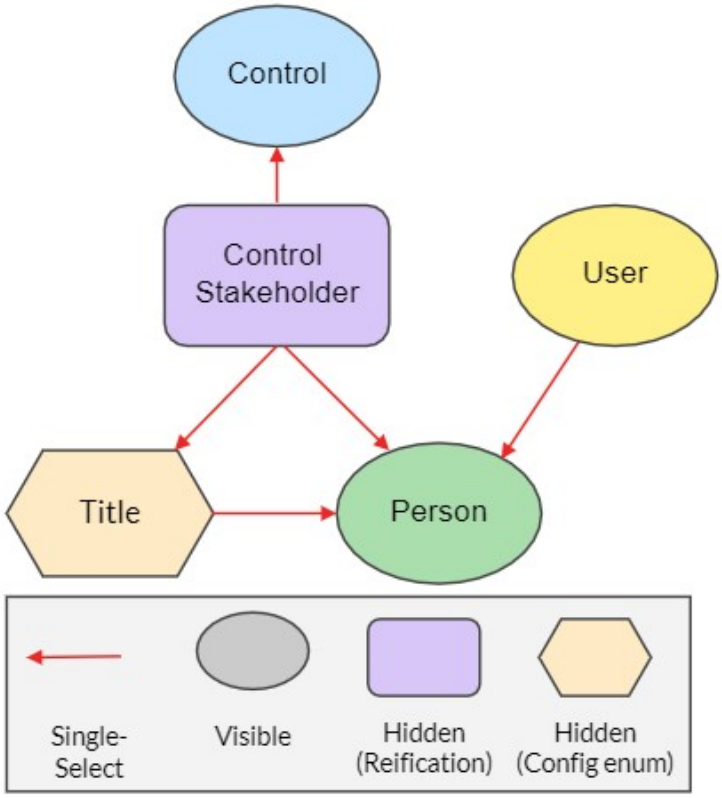


Best Practice: Tie the Risk or Control to the lowest level process; do not tie a Risk or Control to higher level processes, unless the customer says otherwise.

Reification and Hierarchy

Reification

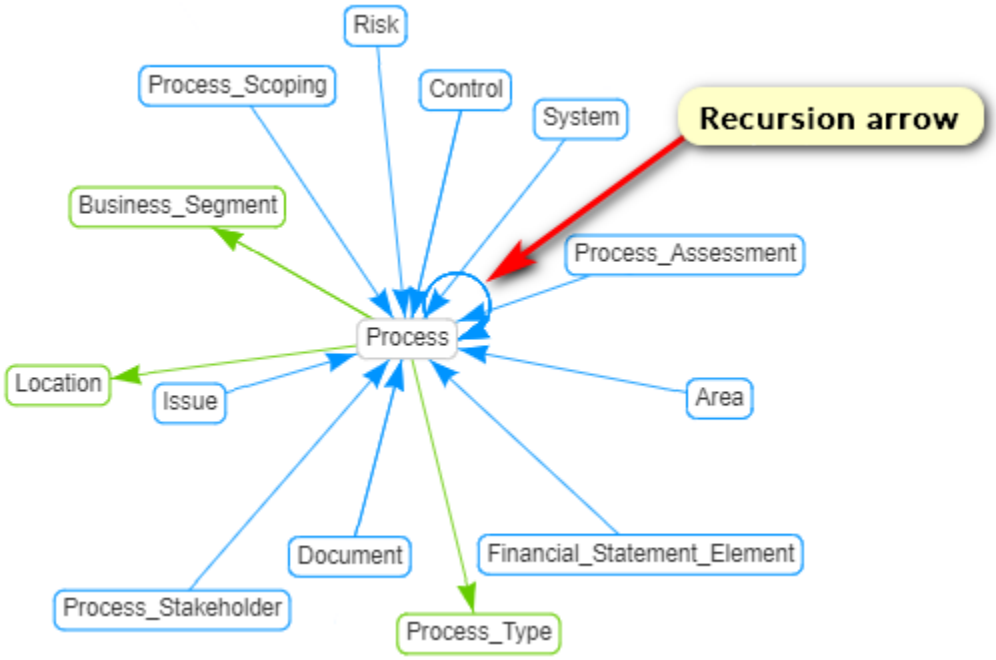
Reification ties pieces together, such as mitigation (risk, control and control objective) and control stakeholder (stakeholder type, person, title).



Hierarchy

We typically look at hierarchy as a vertical structure (for example, Managers REPORT TO Directors who REPORT TO Vice Presidents). In the SOX model, a similar example would be a Control is PERFORMED IN a Subprocess. A sub-process is contained in a Process. The relationship structure is single select, in that a single Control may only be performed in a single Process. A process may have multiple unique controls performed within in it.

Hierarchies in the SOX model are typically represented by a recursive relationship. To visualize this, it is shown with a recursive arrow pointing back to the data type. The following image shows the Process datatype.



In this model, the Process data type is recursive, so Processes and Subprocesses are both considered processes, with Subprocesses contained in Processes. The Process_Type permits discrimination between individual processes, and between processes and subprocesses.

Core RCM model components

The core components of a Risk Control Matrix (RCM) are Controls, Risks, and Processes. There are two broad categories of data considered as part of an RCM.

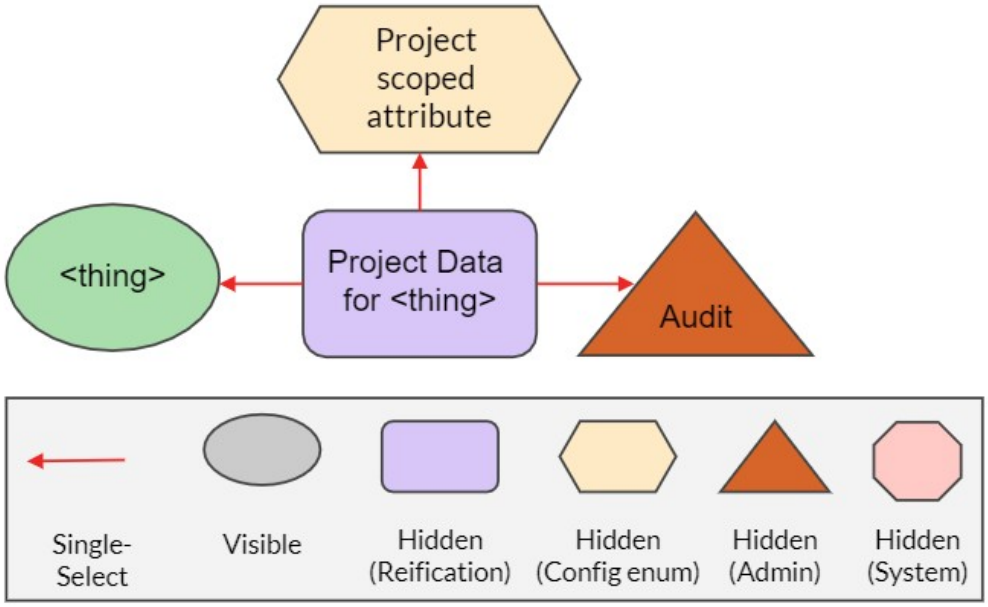
Environment data is composed of things which live year to year, and might also be called the Business Environment data. Environment data is contained in datatypes such as Controls, Risks, Processes, People, and the like.

Project data is cyclical information that may have multiple instances in a year. Typically this is a fact about an item in your environment that is true in the context of a particular project. You can think of project data as an interaction between a *thing* in your environment (such as a Control) and an Audit program. Project data is the work of an internal controls team or audit team to assess a control environment on a periodic basis. It can be a Test of Control, a Control Significance, or EA Reliance.

Project Data and Control Assessment

The graphic below shows how project data is generally represented in the model.

General case



Audit Program Type

The Audit Program Type represents a potentially hierarchical component of the audit program universe of individual Audit Programs. It essentially collects Audits that are all the same “type”.

Audit Program Instance

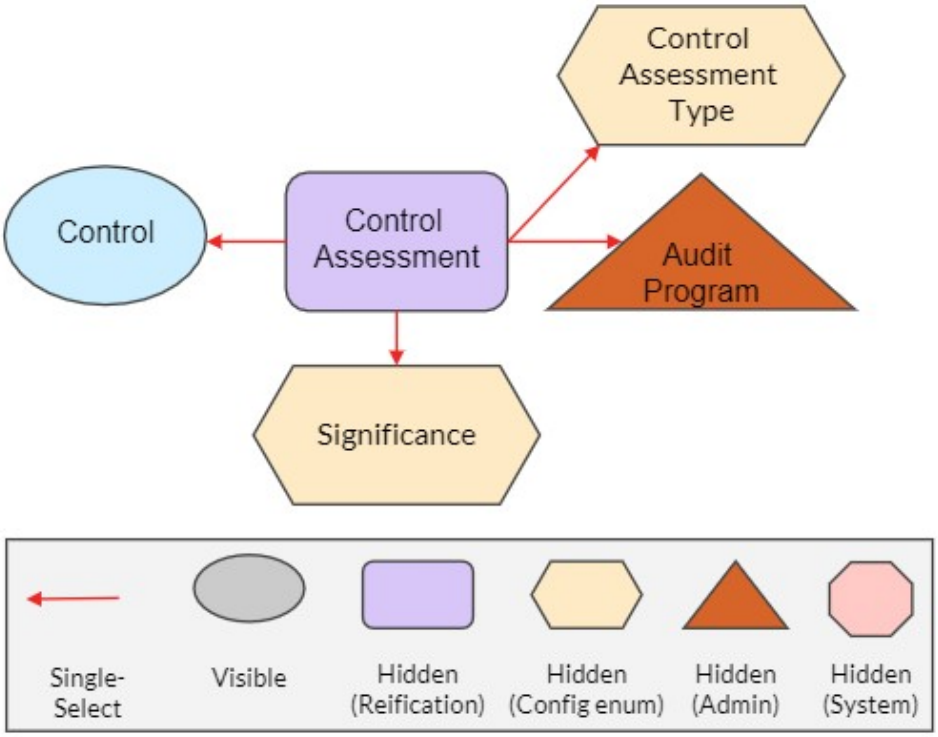
An Audit Program Instance corresponds to a particular year or program. It allows for historic records of audit data, and probably will not be represented in a column in an RCM.

Control Assessment

The Control Assessment model allows you to record the significance (key v. non-key) of a Control. The Control Assessment reification datatype ties a Control and an Audit Program together to get an interaction between the Control and the specific Audit Program, and also to a Control Assessment Type. This pattern allows for multiple different assessments to be conducted against the Control environment, and even for different points in time.

The following graphic shows how Control Assessment is represented in the model.

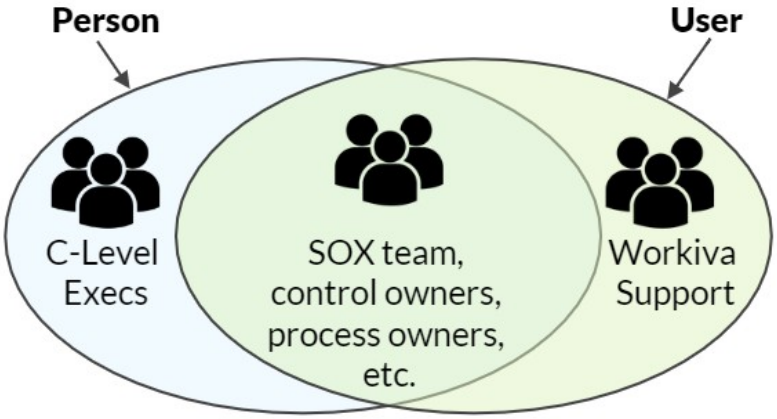
Specific instance (a Control Assessment)



RCM and people

In the SOX model, there are two different data types that correspond to people.

- A "Person" indicates an individual involved in SOX management; these would be Control or Process owners and the like.
- A "User" is a Wdesk user in the account.
  "User" is a managed type, and new records are automatically synchronized based on the addition of new users to the account; this drives PBC and permissions.



Person and User — Properties and Relationships

The relationship between Person and User datatypes is stored in the database as a relationship ("is User") between a Person record and a User record. Person properties can be inherited from the linked User properties. It is critical for User-centric reports to have this relationship established and correct, which is why this relationship is either brought in using the Person-Import datasheet or is manually created.

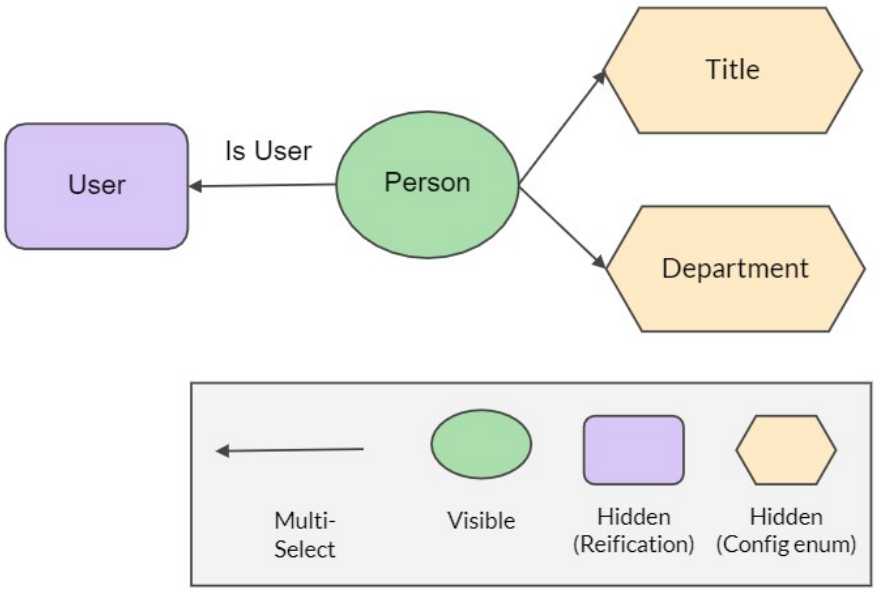
Best Practice: Use the Person-Import datasheet to populate the Person datatypes. Refer to Importing Person-User relationship data for instructions on performing this task.

Properties

- Full Name
- First Name
- Last Name
- Email
- Phone

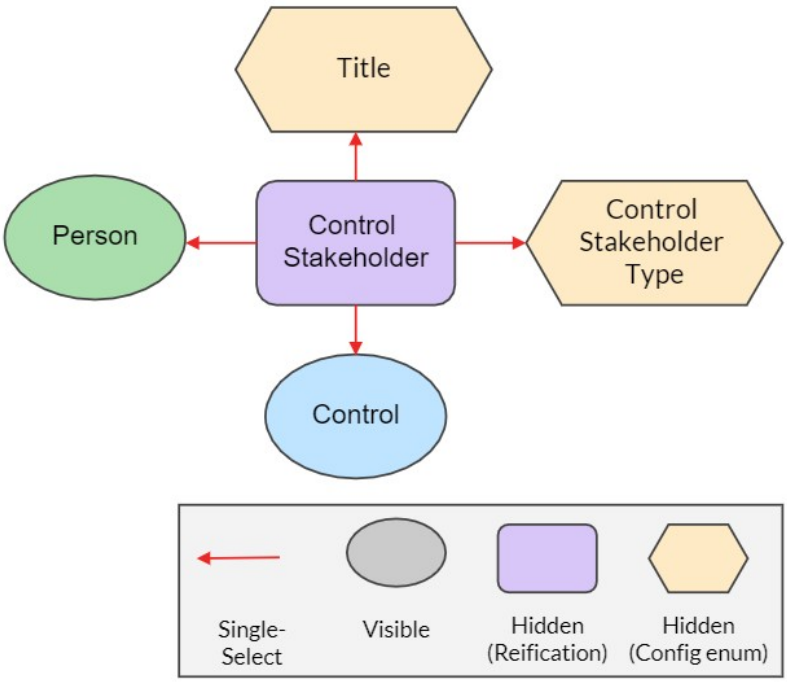
Relationships

- Is User
- Title
- Department



Person — Relationship to things

A typical model pattern used in the SOX model is "Stakeholder", which can be either a Person or a Title. This datatype pattern is used as a template for other datatypes such as Control, Risk, Process, Asset, and many more. In the following diagram, the Control Stakeholder ties the Control to a Person or Title (while it can be tied to both, we strongly recommend against this practice). The Control Stakeholder Type allows you to separate different roles that might have the same function such as internal and external auditors.



The Control Stakeholder has the following properties on import. Additional properties can be added later.

Property Name	Description
IDImport	This is only used for import; it never changes, as it is used as the unique ID value in the database.
IDComputed	This is used as Display ID, and can be changed; no user action required.
Control (Computed)	This is mapped to IDImport; no user action required.
Person (Computed)	This is mapped to IDImport; no user action required.
Stakeholdertype (Computed)	This is mapped to IDImport; no user action required.

Controls in Multiple Locations/Processes

Control-to-Process is a single-select relationship. During validation, a common issue that comes up is "an invalid single-select relationship".

IMPORTANT: This relationship type should never be changed.

To fix this issue, there are two options:

1. Create location/process specific IDs.
2. Map shared service processes:
   - One "performed in process"
   - Additional "shared service for process"

These options are explained in the following sections.

Option 1: Localized control IDs

In order to gain the full power of the database, you need to identify the granularity to which the data will be specified.

Many companies reuse controls across locations and business units; while this is fine when they are contained in their own isolated silo, when the company wants to look across all the locations or business units, the database then needs to have a unique individual record for each control, so that each control has distinct information. If a control has one owner in one process and a different owner in a different process, there must be two distinct records for that control in order to identify the different owners for each record. Similarly, if the same control is used in two different locations or business units. It may help to consider these controls in the database more like control *instances* than control *procedures* or *descriptions*.

When control information changes depending on the location or process, multiple records (one for each) are required, as well as a mechanism to distinguish between the records. For example, when you click a dropdown to get a list of controls, you don't want to see the same Control ID listed multiple times. You want to be able to tell which record the control is connected to. The easiest way to do that is to append the process to the Control ID as that is the granularity to which we are identifying these Control records.

Multiple records may also be required depending on testing. For example, if one control is performed in two processes you will want to determine if the control is tested once or if it needs to be tested for each process it is performed in. An easy way to ask this is to put it in the perspective of reporting. If this one control fails testing, does it fail across both processes it is performed in or does it only fail in one process and not in the other? If the answer is that it only fails in one process, then two different control records are required. Another example would be for IT controls that need to be tested across different systems. If each control and system combination should be reported on its own, then multiple records of that control will be needed. In this case, the easiest way to create unique control IDs is to append the system name to the Control ID.

When using localized controls, you can relate them all to a master control. It is then possible to inherit properties from the master control on the local controls. For example, if you wanted all the local controls to have the same description as the master control, you could use a computed property to populate the description on the local control. For more information on using computed properties, refer to Using computed properties.

Option 2: Shared service processes

If a control is included in multiple processes, and this is not due to localization, it is probably a "shared service" control. Such controls appear in multiple processes as they can mitigate risks across processes, but the control is only performed in a single process.

If this situation appears, consider whether the risks are grouped by process *as well as*, or *instead of* the controls. A template can be used to define these relationships.

- The control-to-process relationship of "performed_in_process" is from control *to* a single process.
- The control-to-process relationship for "shared_service_control_for_process" is multi-select.
- For controls that appear in multiple processes, the process in which it is performed in is defined separately from the shared service process.

Database Toolbox: Understanding graph structure and using Graphical Edit

This chapter covers understanding graph structure and using Graphical Edit in the Database Toolbox:

Overview

The Graph Structure Experience gives you four different ways to view your data model:

- **Model By Type** — this tab shows the YAML entry for each individual model type, such as Control or Control Objective.
- **Full Model** — this tab shows the entire YAML. This tab is where you can merge models, and allows you to change the model by merging in a different model. (For example, adding an Audit model to an account with a SOX model in place.).
- **Graphical Edit** — this tab allows you to see and change all the data types, and the Properties and Relationships for each data type. It is where you should edit of the model.
- **Visualization** — this allows you to see the graph as a relationship map.

The **Graphical Edit** tab allows you to add, remove, and modify Data types, Properties and Relationships in the model in a way that is easier to see, edit, and understand. While the **Model by Type** or **Full Model** tabs allow you to directly edit the YAML, we recommend that only people with a lot of experience with the model do this.

Opening Graphical Edit

To log into and open Graphical Edit:

1. Log in and open the workspace you want to modify.
2. Add `?debug` to the end of the URL, and refresh the screen.
3. Make sure that your user has the Toolbox Admin role assigned to it.
4. Click **Database Toolbox** in the left menu.
   This opens a new browser tab with the Toolbox.
5. The Graph Structure screen should be selected by default. If it is not, click **Graph Structure** in the left menu.
6. Click **Graphical Edit** in the top menu.

Working with data types

Graphical Edit allows you to add, remove, and modify data types in the model.

By default, only data types tagged as "visible" are included in the dropdowns. To view all data types, enable the "show hidden" toggle in the top right corner of the Graphical Edit tab. The right side of the tab shows a preview of the YAML as changes are made.

Adding a data type

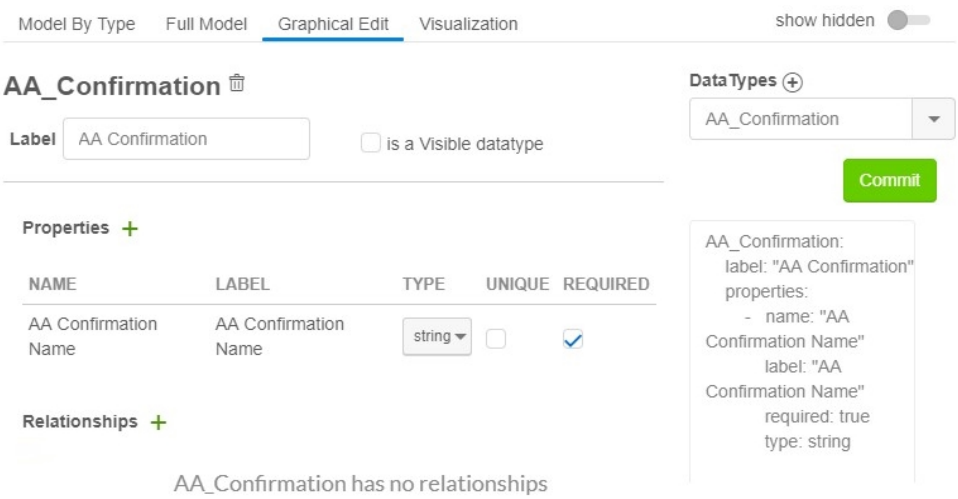
To add a data type:

1. Complete the steps listed in Opening Graphical Edit.
2. Click the circled cross icon next to **DataTypes** in the top right corner of the Graphical Edit screen.
3. Enter the **Name** and **First Property Name** for the new data type.

   Best Practice: Use proper upper and lower casing for names, with underscores replacing spaces.

   Notes

   - If you include spaces in either name they are automatically changed to underscores.
   - The type for the first property defaults to "string"; this can be changed later.
4. Click **Add Datatype**.
   You are prompted to commit the new data type to the model. After you make the commit, the tab changes to look like the following image.



5. If this single relationship is all that is needed, click **Commit**. If you want to add additional properties or relationships, follow the instructions for those tasks.

   Note: This is just a data type; it does not have any relationship to the rest of the model.

   Best Practice: Always add a relationship to or from another data type.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Deleting a data type

IMPORTANT: Standard model items should not be deleted.

To delete a data type:

1. Complete the steps listed in Opening Graphical Edit.
2. Click on the trash can icon next to the data type name in the top left of the **Graphical Edit** screen.
3. Click **Commit** to record your deletion to the database.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Editing a data type

You can change the following aspects of a data type.

- Change the visibility by marking or clearing the **is a Visible datatype** checkbox next to the **Label** field at the top left of the Graphical Edit screen.
- Change the label by editing it in the **Label** field at the top left of the Graphical Edit screen.

Once you have made your changes, click **Commit** to record them to the database.

IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Working with properties

Graphical Edit allows you to add, remove, and modify data type properties in the model. The "Display" value is always the first property that is both required and non-numeric.

Adding a property

To add a property to a data type:

1. Complete the steps listed in Opening Graphical Edit.
2. Click on the green "plus" icon next to **Properties**.
3. Enter the **New Property Name** for the new property.

   TIP: We recommend that you use camel case (for example, "myNewProperty") and do not use spaces for the name.
4. Click **Create Property**.
   The new property is added to the bottom of the **Properties** list.

   Note: The property defaults to the type "string". For a complete list of property types, refer to the list in Editing a property.
5. After you have added all the properties, click **Commit**.
   All property fields other than the name can be edited in Graphical Edit after they have been committed. You can edit the label by clicking on it.

   Best Practice: If you create an incorrect property, delete it and re-add it correctly.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Deleting a property

To delete a property:

IMPORTANT: Standard model items should not be deleted.

1. Complete the steps listed in Opening Graphical Edit.
2. Mouse over the property you want to delete, and click the 'X' at the right end of that row.

   Note: You may need to scroll to the list to locate the property you want to delete.
3. Click **Commit** to record your deletion to the database.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Editing a property

You can change the following aspects of a property:

- Change the **Label** by clicking on the property row, editing the text in the displayed dialog, and clicking **Change Label**.
- Change the **Type** by selecting a different type from the TYPE dropdown. Valid types include:
  - **String** — Any arbitrary string of alphanumeric characters up to 512 characters in length. [A-Z, 0-9, and standard punctuation characters]
  - **Date** — Standard U.S. date format.
  - **Integer** — Any arbitrary string of numbers without separators [0-9 only]
  - **Enumeration** — Drop-down menu populated from a predefined list.
  - **Number** — Any arbitrary string of numbers with separators [0-9, comma, period only]
  - **Bit** — Binary/Boolean value ["True" or "False"]
  - **LongString** — An arbitrary string of characters that supports the "newline" function.

  Note: The three items at the bottom of the list (**Map**, **Form**, **Serialized**) are seldom used and can be ignored.
- Change the **Unique** value by marking or clearing the UNIQUE checkbox. Marking it as unique means that it is unique in the database at the time it is imported.
- Change the **Required** value by marking or clearing the REQUIRED checkbox. Marking it as required means that it is required when creating a new record.
- It is not possible to change the name of a Property in Graphical Edit.

  Best Practice: Change the label, not the name. If it's absolutely necessary, the name can be changed in the YAML.

  Note: To locate the property you want to edit, you can use the filter or scroll the list.

  IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Working with relationships

Graphical Edit allows you to add, remove, and modify data type relationships in the model.

Adding a relationship

To add a relationship to a data type:

1. Complete the steps listed in Opening Graphical Edit.
2. Click on the green "plus" icon next to **Relationships**.
3. Enter the following information.

   IMPORTANT: All fields except "Backward Label" must have content entered or selected.

   New Relationship Name — the name for this relationship.

   Note: We recommend that you use all lower case ("my_new_relationship") for the name. If you use spaces they will be changed to underscores.

   Forward Label — the label for this relationship looking from the source to the target.

   Backward Label — the label for this relationship looking from the target back to the source.

   Destination Datatype — the target data type (where the source data type in this relationship is connected).

   Relationship Type — is this relationship 1:1 (single-select) or 1:many (multi-select)?
4. Click **Create Relationship**.

   The new relationship is added to the bottom of the **Relationship** list.
5. Click **Commit** to record your deletion to the database.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Deleting a relationship

To delete a relationship:

IMPORTANT: Standard model items should not be deleted.

1. Complete the steps listed in Opening Graphical Edit.
2. Mouse over the relationship, and click the 'X' at the right end of that row.

   Note: To locate the relationship you want to delete, you can use the filter or scroll the list.

   IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Editing a relationship

You can change the following aspects of a relationship:

- Change the **Forward** and **Backward Labels** by clicking on the relationship row, editing the text in the displayed dialog, and clicking **Update Label**.
- Change the *Type* by selecting a different type from the **TYPE** dropdown.

  Note: The standard model should not be changed from single-select to multi-select; changing multi-select to single-select is acceptable if it is what your customer wants.
- Change the *Required* value by marking or clearing the **REQUIRED** checkbox.
- It is not possible to change the name of a relationship in Graphical Edit. You can change it by editing the YAML directly, but this is not recommended.

TIP: To locate the relationship you want to edit, you can use the filter or scroll the list.

IMPORTANT: No changes are recorded until you click **Commit**. To discard your changes, close the tab or window without clicking **Commit**.

Using computed properties

There are three types of computed properties in the core model: Compose, Find, and Join. Join is not editable.

Best Practice: Add to the model, rather than removing anything from it.

IMPORTANT: Computed properties can currently only be updated by editing the YAML; it is not possible to change them using **Graphical Edit**. This is something that should only be done by someone who has experience with YAML.

Compose function

The Compose function combines any properties in the same data type instance into a general string. This will almost always be the first property and will act as the display name that can be seen throughout the database.
In the following example, the computed property joins the Control ID and the Summary as a single string.

```
Control:
    label: "Control"
    properties:
        - name: "id"
          label: "Control ID"
          required: true
          type: string
        - name: "summary"
          label: "Control Summary"
          type: string
        - name: "controlIdSummary"
            label: "Control ID & Summary"
```

```
    type: string
    computed:
       - "compose"
       - "%s - %s"
       - "id"
       - "summary"
```

In this example:

- `%s` is a string (a sequence of alphanumeric characters)
- `%d` is a digit (integer)
- The line order is the display order

Note: Any text or punctuation can be included within the quotation marks or as part of the `%s` string.

Examples:

`"%s is called %s"` will display "Control ID is called Control Name".
`$%d.00` will display "$xxxx.00".
`%sfirstName lastName%s` will display "Jo Smits".

Notes on Compose

- If your customer uses only one of the constituent properties in a Compose computed property, and the Compose string is only `%s`, remove the computed property, as there is no need for it. If the computed property was the display property, make that single constituent property the display property by moving it to the top of the list of properties (make sure it is set as `required: true`).
- If your customer wants to include all properties but they do not all exist, a question mark will appear in place of the missing property.

Find function

This function is mostly used for single-select relationships, and will appear for inherited properties.

In the following example, `Control` automatically pulls population size based on frequency (monthly is 12).

```
Control:
      label: "Control"
      properties:
        - name: "populationSize"
          label: "populationSize"
          type: string
          computed:
            - "find"
            - "f.populationSize"
            - ">performed_at_frequency:Frequency(f)"
```

In this example,

- For `f.populationSize`, populationSize is a property on frequency, where f. is determined by the relationship query.
- For `performed_at_frequency:Frequency(f)`, Frequency is the data type being directed to, and `performed_at_frequency` is the traversal to get there relative to the data type instance in question.
- In this case, starting at a control node, there can be multiple traversal lines used. It will first look at the first traversal line to return a value. If the first traversal line does not produce a value, then it will use the second traversal line to return a value.

```
Control:
  label: "Control"
  properties:
    - name: "populationSize"
        label: "populationSize"
        type: string
        computed:
    - "find"
    - "f.populationSize"
    - ">performed_at_frequency:Frequency(f)"
    - ">effective_annualized_frequency:Frequency(f)"
```

Notes on Find

- This can be used for controls that are inherited by another control (Local Control A inherits all properties from Corporate Control A).
- If your customer is not using inheritance, fill in the value for the property by hand or use an import sheet. If the property is not being used at all, hide it with the custom form definition.
- To confirm you are using the correct traversal in this example, enter the following into Textual Query:

  ```
  control(c)
    (c)>?performed_at_frequency:Frequency(f)
  ```

  Textual Query will help you write the traversal. In this case, if no frequencies are returned, then there is a problem with the traversal.

Join function

The Join function is similar to **Find**, but is used to pull multiple values (for example, for multi-selects).

Example: An issue can affect one or more controls which in turn should cover one or more financial statement elements. This provides a list of all financial statement elements affected by a particular issue instance.

```
Control:
    label: "Control"
    properties:
      - name: "financialStatementElementAffected"
        label: "financialStatementElementAffected"
        type: string
        computed:
          - "join"
          - "fs.name"
          - ","
            <indicates_issue_in_control>covers_financialstatement_elem
ent(fs)"
```

Note: In this example, the YAML file adds " , " to join items.

Notes on Join

- You can add multiple traversals by separating them with a pipe or bar symbol (|).
- We recommend that you use Textual Query to construct your traversal.

Model items to keep in mind

The following items should be kept in mind with regard to reification and recursive relationships.

If you have a *recursive* relationship that you are using for structure, make sure that both the source and target data types are the same and add a new data type with a single property of "value" to act as the type differentiator. This is typically called XX_Type. Example: Process and Process_Type.

For a *reification* relationship, this will appear as a table in a record view, and the data type acts as a way to bring multiple relationships together. In order to do this, you will need both a importID property and a computedID property. To make the computed ID, you'll need to use the find and join types — the import ID stays the same and is used for the purpose of creating unique values initially, but the computed ID may change. Refer to Using computed properties for more information on constructing computed properties using find and join.

Database Toolbox: Using data mapping

Overview

This chapter provides you with the information needed to perform data mapping, including the workflow, data parsing and cleaning, creating data maps, understanding datatypes and relationships, using workflows in mapping, creating relationship mapping, validating your data, and ultimately previewing, reviewing, approving and committing the data to your internal workspace before lastly moving the data to your customer's production workspace.

Preparing the organization's Internal Only workspace

Before you can start on a mapping project or import data, confirm that the following preparations have been made.

IMPORTANT: This set of procedures must be done in the Internal Only workspace set up by Workiva.

1. Your customer's data must be set up in a Wdesk spreadsheet.
   If it has already, go directly to step 2.
   If it has not been, Create or Open an existing **Spreadsheet**, then **Import** from XLSX, then continue with step 2.

   Caution: A Wdesk spreadsheet cannot be imported from Home, so the spreadsheet must be opened to import an Excel file.

2. Add `?debug` to the URL and refresh the page.
3. Under the 'Create+' menu, select **Import account** to import the latest shell account to the Internal Only workspace.

   This provides the model that your customer's data will be mapped to.
4. Make sure that the Toolbox Admin role is set.
   (This is set by a user with the Workspace Admin role.)
   You can confirm this by looking for **Database Toolbox** in the left-hand menu when `?debug` is part of the URL. If it is present, then it is set.
5. Once this workspace is created and available you can begin the next phase, which is to import and process your customer's data.

Mapping customer data

Once you understand your customer's data and have made any needed model adjustments, you can begin to map the data. For information on these tasks, refer to Understanding graph structure and using Graphical Edit.

Tip: You can keep Wdesk open in one tab and the Data Modeler open in another tab.

To map your customer's data:

1. Select **Database Toolbox** and open the **Data Mapping** tool.

   Remember that you must be in "debug" mode (`?debug` at the end of the URL) to see the Toolbox.
2. Create a new mapping project by either:
   - Clicking the plus sign in the left panel.
   - Opening an existing mapping project from the left side of the **Data Mapping** tab and saving it with a new name.
3. Add spreadsheets to the data sources for the mapping project.
   a. Select the **Data Sources** tab.
   b. Click **Add your first spreadsheet**, select the spreadsheet, and click **Open**.
   c. (Optional) Add additional spreadsheets by clicking the circled plus sign next to the **DataFiles** header.
4. On the **Data Sources** tab, assign the header row to the row that has the actual column headers. If it is the first row, move to Step 5.
   a. In the **Sheets:** table, click on the circled value (by default this is "1"), and assign the row number of the row that is to be treated as the header row.
   b. Click **Save**.
   c. Repeat for any additional spreadsheets in the mapping project.
5. Select the **Parsing** tab. This is where you prepare the data before it is mapped.
6. Follow the directions in Data parsing and cleaning to parse and clean the raw data from your customer.

7. Follow the directions in Creating relationship mappings to create the data map. Refer to Datatypes and relationships for additional information.
8. Follow the directions in Validating your maps and data to make sure that your maps and data are correct.
9. Follow the directions in Previewing data to see how the data will be committed to the database.
10. Follow the directions in Reviewing, approving, and committing data to confirm that the data is as desired and move it to the database.

Data parsing and cleaning

Data parsing is how you can make certain that your customer's data is both consistent and correctly split up to fit into the SOX model.

The data in the **Parsing** tab is a preview only; any changes need to be done using the parsing functions. The preview acts like a file, and different sheets can be selected for preview.

Parsed and cleaned data can be saved separately from the database as a .csv or .xlsx file; this allows you to provide the cleaned data to your customer for signoff, or to use it as a future source file, or to keep as a record without disturbing the original information. Refer to Creating a parsed data spreadsheet and Sharing parsed data for instructions.

Parsing functions

Different sheets can be selected for preview, but parsing functions are applied only to the source and sheet selected at the top left of the page, even if that is different from the sheet being shown in the preview. To undo a function, remove that function.

Best Practices

- Always have **Trim Excess Whitespace** as your first and last step (parsing function) in the parsing workflow.
- Because the functions operate sequentially, it is best to add any structural changes at the end of the workflow. If structural changes need to occur after functions have already been added, these should be added at the end of the parsing list as they may override existing functions earlier in the list.

Working with parsing functions

IMPORTANT: Column headers cannot be blank or duplicated.

- To add a parsing function, click the plus icon.
- To move the selected parsing function up or down one step, use the single arrow buttons.
- To move the selected parsing function to the top or bottom of the list, use the double arrow buttons.
- To copy a parsing function, click the overlapping sheet icon, then click the pencil icon to edit the function, then click **Save** to save the new function.
- The blue source and parse buttons let you see the different states of your file, you must click **Parse** to update your sheet.

The following table identifies the supported parsing parameters:

Input	Description	Usage
[A-Z]	Any uppercase letter	
[a-z]	Any lowercase letter	
[0-9]	Any number	
Any string	Any string made up of letters, numbers, or special characters	
{blank}	The input may be left blank	Uses the default value for the specific input
"start"	The specific string "start" (without quotes)	Specifies the first data row
"end"	The specific string "end" (without quotes)	Specifies the last data row
/t	A tab character	
/n	A newline character	

Common parsing items

Below is a list of common items that will have inconsistencies, where the inconsistencies are often found and how to parse them:

Automated/Manual

- These terms often have inconsistent usage — A, M, Auto, Manual, etc.

  Fix: Use `ReplaceFullCellText` to replace these with the full word — "Automated" or "Manual".
- Sometimes these are combined — "Automated Manual".

  Fix: Make note of this, and change to "Automated and Manual" or "Both".

Note: This is a single-select relationship, so only one option should be used, per our model. (As a contrast, Preventive/Detective is multi-select which is why the instructions are different.)

Preventive/Detective

- These terms often have inconsistent usage — P, D, Prevent, Detective, Preventative, Preventive, etc.

  Fix: Use `ReplaceFullCellText` to replace these with the full word — "Preventive" and "Detective".
- Sometimes these are combined — "Preventive Detective".

  Fix: Use `SplitToRow` to separate these, using a space as the delimiter.

Control/Control Objective/Risk

Often the ID and the description are in the same cell.

Fix: To correct this:

1. Insert a column next to the original column and set the header (you can do this at the end of the active columns).
2. Use `SplitOnFirstDelimiter` to split these out. You can use hyphens, commas, semicolons, or spaces as the delimiter.

Control/Process Owner

Often this is a person's name and title, however, these are inconsistent, with some entries with only the name, some with just the title, some with both name and title.

There can also be inconsistencies in the name (Bob, Robert, Rob., etc.) and the title (V.P., Vice President, Vice-President).

- Determine how the data is to be set up. Ideally, First Name, Last Name, and Title are all separate. If they are not, insert new columns as needed and manually split names from titles.

  Caution: Be careful with titles and ordering. For example, "Jan Doe, Director of Finance, US" cannot be automatically split on the last comma. This would require manual parsing.

  Fix: If combined but consistent, insert a new column with a header that matched the split-out data and split the names from the title using `SplitOnLastDelimiter`.
- Names should be split into first name and last name. Middle names are not supported as a separate field in the standard model; you can add a new field, or can make it part of the "First Name" field (column), depending on what your customer wants.
  We recommend placing both the first name and the middle name (or initial) in the "First Name" column.

  Fix: Use `SplitOnLastDelimiter`

  Caution: Be aware of middle names or initials and where they should go.

- Check for name consistency and typos. For example, Michelle Kwon vs Michele Kwon vs Michele Smith.

  Fix: Use `ReplaceFullCellText` for incorrect spellings before splitting in case two people have the same first name spelled differently, but one is a typo.
- Check that titles are consistent. For example, CFO vs Chief Financial Officer.

  Fix: Use `ReplaceFullCellText` to make consistent.

Frequency

- Often inconsistent - Semi-annual vs Semi-Annual vs Semi-Annually.
- Replace these to have proper casing and to be consistent.

Assertions

- Often concatenated and comma delineated.

  Fix: Use `SplitToRow` on delineation.

Significance (Key/Non-Key or Tested/Not Tested, etc.)

- Sometimes Yes, No, Key, Non-Key or other terms.

  Fix: Choose one combination - either "Yes" and "No", or "Key" and "Non-Key". Use `ReplaceFullCellText` to make the replacement.

Financial Statement Line Items/Accounts

The following are major issues that need to be resolved:

- Customers often have all of their accounts in one cell for one Control.

  For example, Revenue, Accounts Receivable, Accounts Payable, etc.

  Fix: Split each account out into its own row in the file.
- Delimiters may not be consistent within a cell and or the column.

  For example, "," (comma, no space) ", " (comma, space) "; "(semi-colon) "/" (slash).

  Fix: Standardize the delimiters.

System/Document

- Often concatenated and comma-delineated.

  Fix: Use `SplitToRow` on delineation.

Creating a parsed data spreadsheet

To create a parsed data spreadsheet:

1. After all required sheets on a file are parsed, click on the dropdown arrow located above and to the right of the Parsing Workflow header and select "Export all parsed sheets on active file".

   IMPORTANT: Within the selected file, only sheets containing parsed data will be exported. Sheets without any parsed data and sheets belonging to other files in the mapping project will not be exported.

   Tip: If you need to export all the sheets in the project, add a non-changing parsing step (such as inserting a blank row or column) to each sheet that does not already have a parsing step applied to it.

2. A new spreadsheet is created, using the naming convention **<File_Name> Parsed <ddmmyy>**.

   Within the spreadsheet, a sheet for every source sheet with parsed data is added. Sheets are named using the naming convention **<Sheet_Name>-parsed**.

3. To view the new spreadsheet, navigate to **Home**, and open the spreadsheet.

   You can now use the parsed data spreadsheet as a source file for a new or existing Mapping project. You may also need to return this data to your customer.

Sharing parsed data

There are three ways to export the parsed data for sharing.

- Save the file as either an XLSX file or CSV file in your customer's workspace.
- Select all the cells in a sheet, and then copy and paste them into a new or existing spreadsheet in your customer's workspace.
- Use the **Connected Sheets** option to send the data to a spreadsheet that is in your customer's workspace.

Using connected sheets

To use connected sheets:

1. Open the source spreadsheet.
2. Select the **Data** tab.
3. Select **Data Set**, and select **Publish Data Set**.
4. Complete the **Publish Sheet Data** dialog.
    - **Data Set Name** identifies the data set.
    - **Data Set Access** defines who can pull this data.
    - **Description** allows you to provide a description for reference purposes.
      The list of users available to the **Data Set Access** field is all accounts who are members of the organization.
5. Click **Publish**.
6. Open a new spreadsheet in your customer's workspace.
7. Select the **Data** tab.
8. Select **Connect**, and select **Shared Sheet Data**.
9. Select the shared spreadsheet data.
10. Click **Next**.

    IMPORTANT: All content on this sheet will be replaced by the connected data.

11. The connected data populates the open Spreadsheet.

    Your customer can now:
    - View the data.
    - Update data from linked source if the source data changes due to feedback. See Using Connected Sheets in the Workiva Customer Success center for more information.

Note: It is not possible to directly validate new mapping project data against existing data in the database. The solution is to use connected sheets to pull data from the database into the spreadsheet. You can then use this as a validation.

You might be creating new instances of data for a new mapping project (for example, a new audit year). Once you have the new data, when you create the new mapping project and you select your sources, you can select the extracted data sheet as the source. Now you have a standard mapping project. Since they are spreadsheets, they can be added to a mapping project if needed or in the future.

Data map creation

Data mapping is the process of connecting parsed data to elements of the model. The data types and properties are pulled from the defined model and any updates made there will be reflected in the **Mapping** tab.

IMPORTANT: Data mapping is not the same as creating a mapping project.

You will always have to create the first map in a project manually. After that map is created, most of the maps you will need you can create using Workflow.

Tips

- In the following process, you can use "tab and enter" to select and move from **Data Type** to **Property** to **Group Label**.
- If you make a mistake, click the dropdown and select either "Unmap this column" or "Remove from this map" to remove it from the map.
- You can create as many maps as you want.

Best Practices for maps

- We recommend that you use **Visualization** in **Graph Structure** to create your initial maps. The following points assume that you are using Graph Structure.
- Make small manageable maps.
- Make sure that there is at least one data type tying maps together.
- Multiples of the same data type can be added to a single map for hierarchy purposes.

Create a data map

To create a data map:

1. Add a new map, using **Click to Add Data Map**.
2. Start mapping the data. Most people start with Control information.
3. To map a row, click on that row. This allows you to see the Data Type property for that row.
4. Select the appropriate data type from the **Data Type** dropdown. This lists all available Data Types. (Search is supported.)

   Note: You have to map the data type first in order to get a valid property list.
5. Under **Property**, select the appropriate property.
6. Under **Group Label**:
   - If this datatype has not been mapped before, create a new group label.
   - If this datatype has been mapped, select the appropriate group label.

   Note: Group Label lets you map multiple Properties to the same data type.

Tip: A common place where this will be different is for Process — both Process and Sub-Process are mapped to Process, but they should have different group labels.

7. Repeat steps 3 through 6 for all the other data types you want to map.

   The left side of the screen shows all completed mappings. The right side of the screen shows the added data types with their properties. This side is where you can set how a Data Type should be committed.

Copy data type mapping from one map to another

You can add an existing data type or property mapping to another map within the same mapping project.

To copy an existing data type or property mapping to another map:

1. Open the map you want to copy the existing mapping to.
2. Locate the data type mapping you want to copy.
3. Click the dropdown arrow at the right end of the row.
4. Select **Add to this map**.
5. The data type is automatically added to the current map.

Data types and relationships

Common data types and relationships

While every customer is different, these are the datatypes and relationships most frequently used in Wdesk.

Default Set

- Control>performed_in_process::Process
- Control>covers_assertion::Assertion
- Control>automated_or_manual::Automated_Manual
- Control>preventive_detective::Preventive_Detective
- Control>performed_at_frequency::Frequency
- Control>fraud_determination::Fraud_Investigative
- Control>mrc_control::MRC_Control
- Person>assigned_title::Title

Control Assessment Set

- Control_Assessment::Control::Significance::Audit_Program
- Control_Assessment>assessed_control::Control
- Control_Assessment>control_significance::Significance
- Control_Assessment>assessment_for_project::Audit_Program

- Control_Assessment::Control::Control_Rating (what we normally call risk rating)
- Control_Assessment>risk_of_failure_rating::Control_Rating
- Control_Assessment::Control::Control_Assessment_Type
- Control_Assessment>is_control_assessment_type::Control_Assessment_Type

Control Scoping Set

- Control_Scoping::Control::EA_Reliance::Audit_Program
- Control_Scoping>ea_reliance::EA_Reliance
- Control_Scoping>scopes_control_for_project::Audit_Program

Control_Stakeholder Set

- Control_Stakeholder::Control::Control_Stakeholder_Type::Title
- Control_Stakeholder>is_control_stakeholder_type::Control_Stakeholder_Type
- Control_Stakeholder>control_stakeholder_fulfilled_by_title::Title
- Control_Stakeholder::Control::Control_Stakeholder_Type::Person
- Control_Stakeholder>is_control_stakeholder_type::Control_Stakeholder_Type
- Control_Stakeholder>control_stakeholder_fulfilled_by_person::Person

Risk/Control Mitigation Set Type 1

- Mitigation::Control::Risk
- Mitigation>provided_by_control::Control
- Mitigation>mitigates_risk::Risk

Risk/Control Mitigation Set Type 2

- Mitigation::Control::Control Objective
- Mitigation>provided_by_control::Control
- Mitigation>ensures_control_objective::Control_Objective

Process Stakeholder Set

- Process_Stakeholder::Process::Process_Stakeholder_Type::Title
- Process_Stakeholder>is_process_stakeholder_type::Process_Stakeholder_Type
- Process_Stakeholder>process_stakeholder_fulfilled_by_title::Title
- Process_Stakeholder::Process::Process_Stakeholder_Type::Person
- Process_Stakeholder>is_process_stakeholder_type::Process_Stakeholder_Type
- Process_Stakeholder>process_stakeholder_fulfilled_by_person::Person

Process Set

- Process::Process
- Process>parent_process::Process
- Process::Process_Type
- Process>is_process_type::Process_Type

Secondary data types and relationships

The following data types and relationships are less frequently used, but are not uncommon.

Control Set

- Control::COSO_Element
- Control>covers_coso_element::COSO_Element
- Control::Document
- Control>uses_document::Document

COSO_Element Set

- COSO_Element::COSO_Level
- COSO_Element>level_of_coso_element::COSO_Level
- COSO_Element::COSO_Element
- COSO_Element>parent_coso_element::COSO_Element

Financial_Statement_Element Set

- Financial_Statement_Element::Assertion
- Financial_Statement_Element>relies_on_assertion::Assertion

Document Set

- Document::System
- Document>generated_by::System

Workflows in mapping

To use the workflow function to create hierarchical or reification mappings, you must first select **Mapping Workflow** in the left-hand map area, then select **Workflow** on the **Mapping** tab.

Note: Depending on the workflow type chosen, different processes will be available (for example, Process Structure will have different options than Control Stakeholder by Person).

Each workflow has a different setup process:

- For *Stakeholder* workflows, choose **Stakeholder Type** from the list of commonly used ones, or add a custom one, then use the Control key to select all the properties needed to make up the concatenated ID column.
- For *Structure* workflows, add the **Structure Type** in the order it should appear (to change the order, use the up and down arrows).
- Setting the **Types** as part of the structure workflow will allow the workflow to auto-fill columns with the type.

Note: Creating a workflow automatically creates both the maps and the relationship maps for the data type.

Common naming conventions

Customers often have different naming conventions that they use. The following table shows common variances and what they correspond to the in the Wdesk SOX model.

Data Type	Common Naming	Alternatives	Alternatives
Significance	Key/Non-Key	Primary/Secondary	Tested/Not Tested
Automated_Manual	Control Type		
Preventive_Detective	Control Type		
Control_Rating	Risk Rating	Discuss with your customer which naming convention should be used.	
Process	Cycle		

Common mapping areas

There are a number of common mapping areas that are created for almost every project. These can be manually created or created using the workflow process.

Area	Description
Control_Assessment	• Concatentate Audit Program and Control ID (and Significance if desired). • If Audit_Program does not exist, use SetHeader and FillColumn with "SOX <yyyy>".
Control_Scoping	• Concatentate Audit Program and Control ID (and EA Reliance if desired). • If Audit_Program does not exist, use SetHeader and FillColumn with "SOX <yyyy>". (no quotes)
Mitigation	Concatenate Control ID, Risk ID, and Control Objective.
Control_Stakeholder	• Concatenate Control ID, Person, and Control_Stakeholder_Type. • If Control_Stakeholder_Type does not exist, use SetHeader and FillColumn to add the type (owner, reviewer, etc). **IMPORTANT:** Ask your customer if they identify these stakeholders by Person or by Title.
Process_Stakeholder	• Concatenate Process ID/Name, Person, and Process_Stakeholder_Type. • If Process_Stakeholder_Type does not exist, use SetHeader and FillColumn to add the type (owner, reviewer, etc). **IMPORTANT:** Ask your customer if they identify these stakeholders by Person or by Title.
Process Structure	Set up process structure and use Process_Type.

Creating relationship mappings

After columns are mapped to the model, they must be tied together. Selecting the source mapping displays all available relationships.

Note: Not all relationships need to be selected.

To create relationship Mappings:

1. Select **Data Mapping** in the left menu, and then **Relationship Mapping** in the top menu.
2. For each datatype listed under **Source Mappings** at the left of the screen, select the appropriate relationship under **Relationships and Destination Mappings**.
3. As each relationship is mapped, it is listed under **Mapped Relationships** on the right side of the screen.

Tip: The commit action can be changed in the **Relationships and Destination Mappings** section. Options are Default, Insert, Read, or Update.

IMPORTANT: You must repeat this process for each map you create. Use the dropdown arrow next to Maps to move through the available maps.

Validating your maps and data

After mapping, workflow creation, and relationship mapping, the next step is to validate the relationships. Validation uncovers how the data all comes together.

IMPORTANT: Validation only looks at data within a specific mapping project, not across all mapping projects.

Note: The first time the **Validate** tab is opened for a data model, the **Generated** and **Validated** buttons are shown in orange with an exclamation point.

To validate the data relationships:

1. Select the **Validate** tab and click **Validate Data**.

   IMPORTANT: If parsing is added or changed, the buttons will change from green to orange. You will need to parse and validate your data again.

2. After the **Validate** button turns green and displays "Validated", a list of validation functions is displayed.

3. Use the **Validation Functions** to see if there are any issues with the data. Validation Functions are described in the following table:

Function Name	Importance	Action
Blank Reification IDs	Informational	Review data to be sure that it is correct.
Datatypes With Multiple Uniques	Must fix	Not common, but critical to fix.
Find Duplicates	Must fix	Duplicates can cause problems. It may be as simple as one entry having a period and one not having one, or there may be extra spaces.
Invalid Single Select	Must fix	Critical to fix. If there are errors, determine if the items are the same or should be different. The most common error is having a Control in more than one Process.
Relationships by Sheet	Informational	Review unmapped relationships to confirm that all relationships that need to be mapped are mapped.
Unique Values By Datatype	Informational	Shows all unique values and their properties, broken out by datatype. This is useful for the following: • Identifying missed duplicates. • Confirming that all the assertion options make sense.
Unique Values By Sheet By Datatype	Informational	Same function as "Unique Values By Datatype", but on a sheet-by-sheet basis. This is useful when there are multiple sheets in a project.

For each **Line Item**, the number in the circle at the right indicates the number of issues. Selecting a line item with a number greater than zero shows the problematic values on the left.

The Data mapping validations checklist can help you track the validations.

Previewing data

Before the parsed data is committed, you can preview the product of all the parsing and mapping before the data is committed to the database.

After you have generated the data by clicking **Generate Data**, clicking **Data Preview** in the top menu allows you to review all the data broken out by datatypes. Selecting a datatype displays all the mapped properties for that datatype, and also allows you to see the relationships for those elements. Functionally, what is shown here is how the data will be committed to the database. When looking at relationships, selecting a source data type will display the mapped relationship options.

Note: Due to the interactive and collaborative capabilities of Wdesk spreadsheets, data in mapping projects may change as a result of an update to the underlying source data; this in turn can affect how the data is presented in the Database Toolbox. In order for this not to be a surprise, an alert is displayed when a change has been made, asking you to confirm the change.

Best Practice: If data has been changed within Wdesk, confirm that those changes are reflected in the mapping project.

Changes to the model may also affect mapping projects. When an update to the model occurs, this also needs to be updated in the mapping project.

IMPORTANT: If an alert is presented to the user, check that the model matches the mapping project.

Reviewing, approving, and committing data

Once you are confident in the data, it must be sent to a reviewer (a Workiva SA) to be approved. If they find it acceptable, they will approve it. Until they approve the mapping project, you will not see a clickable **Commit** button on your screen.

After the reviewer approves the data, you will need regenerate, validate, and commit the data to the database.

Once it is committed to the internal only account, then you must make certain that all was committed correctly. Confirm that no data is missing or corrupted. If this happens, you must go back to the mapping project and figure out what went wrong.

Template Sheets: Importing template sheets for mapping

This chapter covers importing template sheets for mapping through the following sections:

Overview

Workiva's experience is that customers often have their data stored across multiple locations in all sorts of structures. In order for customer data to be useful it needs to be consolidated, mapped, and validated. To achieve this, Workiva created a set of templates to simplify mapping standard data sets for customers.

What are templates?

Templates are a way of getting standard data from your customer to fit into the Wdesk model. These are part of a structure that is the same across all customers. Some templates are required in specific formats for testing to work, or for frameworks (such as COSO) to be included.

Template structure

Every template is structured the same; it has a **From Customer** tab, a **DEF** tab and a **DATA** tab. Some templates may have multiple DEF and DATA combinations. DEF sheets contain the data types, properties and relationships that already exist in the SOX model. DATA sheets contain customer data that matches these definition properties. DEF and DATA tab structures should not be changed. Import sheets consists of maps that are composed of paired DEF and DATA tabs that follow the defined SOX model.

The DEF and DATA tabs must have consistent naming (DEF-Name1, DATA-Name1) and should appear directly after each other. DEF and DATA maps that are named differently or that do not appear sequentially will be ignored during import.

IMPORTANT: When sending information to your customer, do not include the DEF and DATA tabs.

Security

For security, the first DEF tab must include the Production account name and ID. If they do not match (including case), data can **NOT** be imported into an account. If there is a mismatch in the name, an error message is displayed.

The default import actions are set so that any data that has already been committed is protected. So there will be a lot of READ entries and only new data will be DEFAULT.

Populating import templates

Complete the following process for each tab to get the templates populated and your customer's account set up. Each tab should always be sent to a reviewer before importing your customer's data. All templates covered below follow the same instructions.

IMPORTANT: The initial data (standard RCM data) must be committed to the account before using any of these import templates.

1. Send the **From Customer** tab to your customer to fill out.
2. After your customer returns the completed **From Customer** tab, copy and paste the information in it to the **DATA** tab.

   Note: The information should align exactly. Be careful when pasting as some blank columns in the From Customer tab have formulas in the DATA tab.
3. Many of the DATA tabs have formulas; review the formulas to make sure they are showing the correct data throughout.
4. Send the updated sheets to your customer for review.
5. In the **Internal Only** account, add `?debug` to the URL and refresh the page.
6. In the left menu area, click **Create**> **Import**> **Import Data (Strict Mode)** and select your file.

   Important: If you are importing multiple files at once, refresh the sheet after each import.
7. After the data has been imported into the account, select a sample set of records and review them to make sure everything was imported correctly and as expected.

Reviewing the completed template

Because data onboarding uses Microsoft Office™ products, there is the chance that your customer may alter the template without understanding the consequences of this action. The most common change is to add columns. If columns have been added, make sure that you understand the customer's needs and desires for the content of these columns, to map these items correctly (just as you would in the discovery phase).

Note: Using templates does not mean that all the work is automatically correct; using templates only reduces the amount of work and rework required, it does not eliminate it. Items still need to be parsed, mapped, or modeled specifically for your customer.

Existing import templates

The following templates are available from your Solution Architect.

- **SOX Data template**
- **SOX Scoping/Risk Assessment template**
- **Testing templates**
- Additional templates:
    - **Person/User Import template** — Use this to correctly import your customer's person-user relationship data.
    - **Enum Types Import template** — Use this to correctly import your customer's Enum types.
    - There are also three COSO templates. These all tie the control with Point of Focus, however, these can be updated to tie control to whichever COSO your customer bases their reports on:
        - **COSO Import Template - Component Letters** — Use this to import Letter abbreviations for components.
        - **COSO Import Template - Letters** — Use this to import an Alphabetical Point of Focus order.
        - **COSO Import Template - Numbers** — Use this to import a Numerical Point of Focus order.

Importing Person-User relationship data

When you import your customer's Person-User relationship data any existing Person records need to have the email property filled out so that when the record is added as a User the system can sync the User record to the Person record. When a user is added, the system takes the username (email address) and looks through all the Person records in the database. If the username matches the email property of an existing Person record, the new user is synchronized with the Person record.

IMPORTANT: Before importing user records, make certain that the First Name and Last Name fields in the "Person No User" report are populated for each Person record, not just the "Full Name" field. The First Name, Last Name, and Email values must each be in a separate column.

After the Person records have been added through the initial data implementation, send the file to your customer to complete. After the file is completed by your customer, you can import it. Finally, after the email property import is complete, you can perform the mass-user import in Admin.

Refer to the *Person UserSync 2.0.xslx* file in the Import Templates folder on the Partner Portal for the import template. Use this for both existing and new Person records in the database.

IMPORTANT: If you are importing Person records into the Internal Only workspace, to prevent duplicate entries when the user sync is made, the Database Implementation Templates NEW file must be imported into that workspace before importing the Shell Account .bin file into your customer's Production account.

Configurable enums

An enum is a list of options for a dropdown menu. This makes sure that that only specific values are available in the dropdown.

It is important to discuss configurable enums with your customer because:

- They may wish to include a range of data, but are not able to provide all the needed information in their current documentation.
- Nobody wants to see blank dropdown options when looking at their data.

If your customer does not want to see a particular model area, you do not need to import enums for that area; in this case you can hide that relationship from the form definition.

The Partner Portal has a workbook that can be imported into your customer's account to show them possible enums. The Partner Portal also contains an Enum Type Import Sheet for importing enums. This has the same information and format as the Workbook, but includes the DEF tabs.

Caution: When using this import template, be sure to not create duplicate data. If you are concerned about this, import this information first and mark the data types as "read only" in your base SOX data import sheets.

Template Sheets: Using the customer testing template

This chapter covers using the customer testing template.

- Testing sheet template tabs
- Customer instructions

Overview

The goal of the customer testing template is to assist your customer in cleaning their data before importing it into their workspace. The template file is called "Customer Templates", and can be obtained from your Workiva Support Team.

To use this file, send it to your customer and ask them to fill out tabs #3 though #8. You will need to have discussed with them whether they need to complete the **Test Steps and Attributes** or the **TS&A Phase-Specific** sheet; generally only one needs to be completed.

IMPORTANT: When you receive these sheets back from your customer, you must import them. Do not do a Toolbox commit. Remember that the data may need to be parsed and cleaned before the import; you can use the Toolbox to do this before saving the data to a spreadsheet. Once it is in the spreadsheet, you can copy and paste it into the template.

Testing sheet template tabs

When you are testing your customer's data, we strongly recommend that you work though each of the testing import sheets in order. Most sheets have questions for customers and include a template that can be sent to your customer to fill out; most will only require answering a few questions.

Note: Sheets 1 and 2 no longer require input from users; they remain in the Excel spreadsheet for tracking purposes.

PBC and Testing Values (Sheet 3)

Using this sheet will depend on your customer. It lets you assemble all the options for every dropdown used in the test sheets. The template contains standard options for phases, statuses, and conclusions, your customer can specify custom values.

These datatypes and drop-down options are the standard fields available in the database. All fields can be customized to your customer's specific use cases.

Best Practice: Have your customer only review and update the columns that are pertinent to their current process, and ignore the columns that do not pertain to them.

Caution: Enums must be the same across all test phases, as different phases cannot have unique conclusions, statuses, etc. If your customer has varying conclusion and status values, you will need to discuss defining consistent options across all phases with them.

Refer to Configurable enums for more information.

Required from your customer

Your customer must provide the following information:

- Audit program (from Testing Import Sheet 2)
- Dropdown options
- Orders

Test Forms (Sheet 4)

This sheet enables a bulk creation of the test forms for your customer. Column A can be auto-filled with the Audit Program (ex. "SOX 2050"). Column B will be filled with each Control ID for the Controls to be tested. Columns D through H are optional.

When this sheet is returned, copy the information into the **DATA - Test forms** sheet. This information should also be provided to the reviewer.

Note: Custom properties can be added here. If these are added, make sure they are added to the DEF tab. If any "Test of Control" property is not being used, either remove it or make sure it is blank.

IMPORTANT

- In the DATA tab, there are formulas to create the "Test of Control ID" based on the combination of audit program and control tested. Do not edit these formulas.
- All Control ID's listed in the template must match the Control IDs in your customer's RCM.

Required from your customer

Your customer must provide the following information:

- Which controls are being tested for that year (regardless of the phase they are tested in).
- The test conclusion action default — The name for this was determined on sheet 3 (PBC and Testing Values); here the question for your customer is: what do they want as a default?

  Best Practice: Start with every action default the same, either effective or blank.

  Tip: Create a report listing all template controls that you can send to your customer to encourage consistent naming.

Test Phases (Sheet 5)

This sheet creates the tabs for each phase on a test sheet.

After the test forms are created you can then populate the phases that would be required for each test of control. You are not required to populate each phase at this point.

For example, if you are testing at the Interim and Roll Forward phases you will want to add those, but the Remediation phase (which you don't know if you will have) can be added later in testing the individual test forms from the "Manage Phase" button.

Columns A through C are required. Each test phase per Control must have its own row. For example, if Control AP.01 is to be tested at both the Interim and Roll Forward phases, two rows are required, one for each phase. The Control column (Column A) will contain AP.01 for both rows and Column C for each row will have the unique phase name. Columns E through K are optional.

There are multiple ways to populate the test form. Examples include:

- Single Test Step with Multiple Attributes
- Single Test Step with Single Attribute
- Test Steps with No Attributes

Based on the control they pertain to, different formats can be used. The format chosen affects how the test steps and attributes will appear in the database.

IMPORTANT

- There are computed fields in the DATA tab that should not be changed.

Required from your customer

Your customer must provide the following information:

- The phases each control is tested for (these should be consistent with the options listed in on sheet 3 (PBC and Testing Values) and information about the controls tested for each phase.
- Test Phase Status — The default for this is "Not started", but it depends on the values specified on Sheet 3.

  IMPORTANT: The default start option must be set to "Report off".
- Phase Conclusion — The default for this is usually either "Effective" or blank but it depends on the options your customer chose on Sheet 3.

  Note: Custom phase properties can be added here.

Test Steps and Attributes (Sheet 6a)

Note: Typically you would import either this sheet or Sheet 6b (TS&A Phase-Specific), but not both.

This sheet records the test and attribute matrix displayed on the **Overview** tab of a test sheet.

This tab allows you to mass populate your individual test steps and attributes per tested control. The same control will be listed on separate rows with each corresponding Test Step/Attribute listed out individually. You do not have to populate each test step and attribute at this point, as testers will be able to do so after the import.

IMPORTANT

- There are computed fields in the DATA tab that should not be changed.
- The "Testable attribute" column identifies if that particular attribute is testable from a SOX perspective. If it is testable, the report will offer conclusion drop-downs. Nontestable attributes present a text field for comments.
- The Control ID must already exist and match exactly including case.

Required from your customer

Your customer must provide the following information:

- A list of all their test steps and the attributes for each control.

  This will likely need to be parsed so that each test step and attribute is on a single line if they give merged information. Paste this information into the DATA tab so that the calculations can create the necessary properties to import.

  There are three different versions of this sheet:

  - **Basic** — This imports test steps and attributes to a Test of Control.
  - **Multi-Audit Program** — This imports test steps and attributes to test sheets in different audit programs that are testing the same Control.
  - **Phase-specific** — This imports test steps and attributes to a Test of Control, but specifies which attributes are associated with specific phases (for example, applying Test Step 1 to Phase 1 only, and Test Step 2 and Attribute 3 to Phase 3).

TS&A Phase-Specific (Sheet 6b)

Note: Typically you would import either this sheet or Sheet 6a (Test Steps and Attributes), but not both.

This tab allows you to mass populate your individual test steps and attributes per tested control specific to a particular phase or phases. The same control will be listed on separate rows with each corresponding Test Step/Attribute listed out individually. You are not required to populate each test step and attribute at this point, as testers will be able to after the import.

Note: The "Testable attribute" column identifies if that particular attribute is testable from a SOX perspective. If it is testable, the report will offer conclusion drop-downs. Nontestable attributes will instead present a text field for comments.

IMPORTANT

- The Control ID must already exist and match exactly including case.
- From column T on the specific test phase must have a corresponding Yes or No value.

Required from your customer

Your customer must provide the following information:

- A list of all test steps and attributes for each control as well as which phases they are applicable to.

  Best Practice: Have your customer list the test steps and attributes in the format they would like them to appear in the database, as parsing could change the format. Remember that the format chosen affects how the test steps and attributes will appear in the database. We highly recommend that you demonstrate these options to your customer before providing the template.

Testers (Sheet 7)

This sheet associates users as testers for the test phase. This allows you to mass assign Testers to a particular Test Phase. All columns must be filled out.

Note: If your customer does not know who the testers are, this sheet can be ignored, and they can manually update the account when they know who the testers are.

IMPORTANT

- The Control ID and test phase values must already exist on the **Test Phases** tab and must match exactly, including case.
- The full name of the tester is required in Column E and must already exist within the Wdesk database. Ideally, the name should be in FirstName/LastName format. If provided in FullName format, your customer should parse the full name out before import to identify the FirstName and LastName structure.

- Users must have been added to the workspace and tied to a Person using the Person User Import spreadsheet before this sheet can be imported. The import will fail if this has not been done. The Person/User template associates person records to corresponding email addresses that are used to add users to account.

Required from your customer

Your customer must provide a list of testers for each test, broken down by phase.

Review Plans (Sheet 8)

This sheet creates the structure for review plans. The review plan type should be consistent with the options on sheet 3 (PBC and Testing Values). This allows you to mass assign Reviewers to a particular test phase.

Note: If your customer does not know the order and timing that they want to send test sheets for review, this sheet can be ignored.

IMPORTANT

- The Control ID and Test Phase name must already exist on the **Test Phases** tab and must match exactly, including case.
- If the Column F ('Review Plan Type') is populated, the types should match those on sheet 3 (PBC and Testing Values).
- Column E ('Order of Reviewer') is required. If there is just one level of Review enter "1" in that column.
- The full name of the reviewer is required in Column H ('Reviewer'), and must already exist within the Wdesk database.

Required from your customer

Your customer must provide the following information:

- The order in which they will send items for review.
- Who they will send items to review.
- When those items are due.

Customer instructions

Providing instructions to your customer will provide assistance with getting these tabs filled out correctly. The following table provides some "short form" instructions you can provide to your customer as part of the email when you send them the template.

Notes

- If your customer is making model additions for testing, those new properties must be added to the templates.
- The test phases listed on the Test Phase template must match the Test Phase names on sheet 3 (PBC and Testing Values).

Template	Description
PBC and Testing Values	This tab lists the values you would like to use for each of the "drop downs" in your PBC Requests, Testing Sheets, Issues, and Action Plans. These datatypes and drop-down options are the standard fields available in the database. All fields can be customized to your specific use cases. Ignore the columns that do not pertain to your current process, and review and update the columns that are pertinent to your team as needed.
Test Forms	This tab allows bulk creation of your test forms. Requirements: • Column A can be auto-filled with your Audit Program (example:. "SOX 2050"). • Column B must be filled with each Control ID for the Controls to be tested. • Columns D–H are optional. **IMPORTANT:** All Control IDs listed in the template must match your RCM Control IDs.
Test Phases	After test forms are created you can populate the phases that are required for each Test of Control. You are not required to populate each phase at this point. For example, if you are testing at Interim and Roll Forward phases you will want to add those, but if you don't know if you will have a Remediation phase, it can be added later on the individual test form by clicking **Manage Phase**. Requirements: • Columns A–C are required. • Each test phase for each Control must have its own row. For example, if Control AP.01 is going to be tested at both the Interim and the Roll Forward phases, then two rows are required. AP.01 will be present in both rows and each row will have the correct phase in Column C. • Columns E–K are optional. There are multiple ways to populate the test form, and you can use different formats for different controls. Examples include: Single Test Step with Multiple Attributes Single Test Step with Single Attribute Test Steps with No Attributes Be aware that the format chosen affects how the test steps and attributes appear in the database.

Template	Description
Test Steps and Attributes	This tab allows you to mass populate your individual test steps and attributes for each tested control. **Note:** The "Testable attribute" column identifies if that particular attribute is testable from a SOX perspective. If it is testable, the report will offer conclusion drop-downs. Nontestable attributes will instead present a text field for comments. Required: • The same control must be present on separate rows with each corresponding Test Step/Attribute listed out individually. • The Control ID must already exist and match exactly. • You are not required to populate the template for all controls. Controls excluded from this template can be populated with the related test steps and attributes later on.
TS&A Phase-Specific	This tab allows you to mass populate your individual test steps and attributes for each tested control specific to a particular phase or phases. Requirements: • The same control must be listed on separate rows with each corresponding Test Step/Attribute listed out individually. • The Control ID must already exist and match exactly. • You are not required to populate each test step and attribute at this point, as testers will be able to after the import. • From column T onwards, the specific Test Phase must have a corresponding Yes or No value.
Testers	This tab will allow you to mass assign testers to a particular test phase. Requirements: • All columns are required to be filled out. • The Control ID and test phase must already exist on the Test Phases tab and must match exactly. • The full name of the tester is required in Column E and must already exist within the Wdesk database. It is preferable to have it in FirstName/LastName format so that it can be parsed out before import.
Review Plans	This tab will allow you to mass assign Reviewers to a particular test phase. Requirements: • The Control ID and test phase must already exist on the Test Phases tab and must match exactly. • If the Column F ('Review Plan Type') is populated, the types should match those on sheet 3 (PBC and Testing Values). • Column E ('Order of Reviewer') is required. If there is just one level of Review enter "1" in that column. • The full name of the reviewer is required in Column H ('Reviewer'), and must already exist within the Wdesk database.

Preparing the database

This chapter covers what you need to know to prepare the database.

- Working with textual queries
- Using report dropdown filters
- Understanding report permissions and rules
- Working with dashboards

Working with textual queries

Textual queries are how you create reports connecting one data type to another using a named traversal. It is also possible to create user-centric reports that show information based on the user. You start with a data type, list the properties, indicate the traversals, filters, etc. and then create user-centric reports.

Using Textual Query

The Wdesk Textual Query feature is where you create report queries. It is also where you can rename report headers, construct filters to include or exclude certain results and determine how much information is to be displayed in the report. As a result, to correctly write a query and construct a report you need to understand the data model. Refer to the Glossary and term reference if there are terms you don't understand.

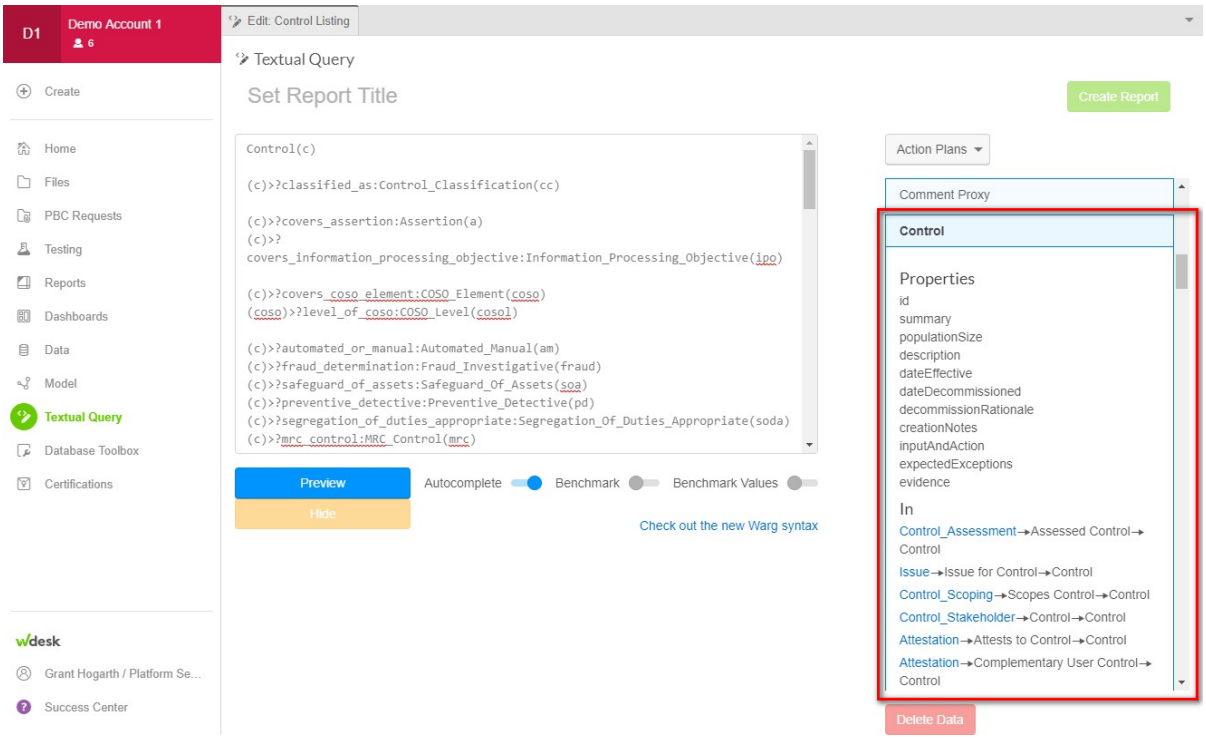
Note: To use Textual Query, you need to be logged in using ?debug.

Creating a textual query

The **Textual Query** page shows the traversal name and all the relationships and properties for each data type in the right-hand panel. For detailed information on these, refer to Data elements.

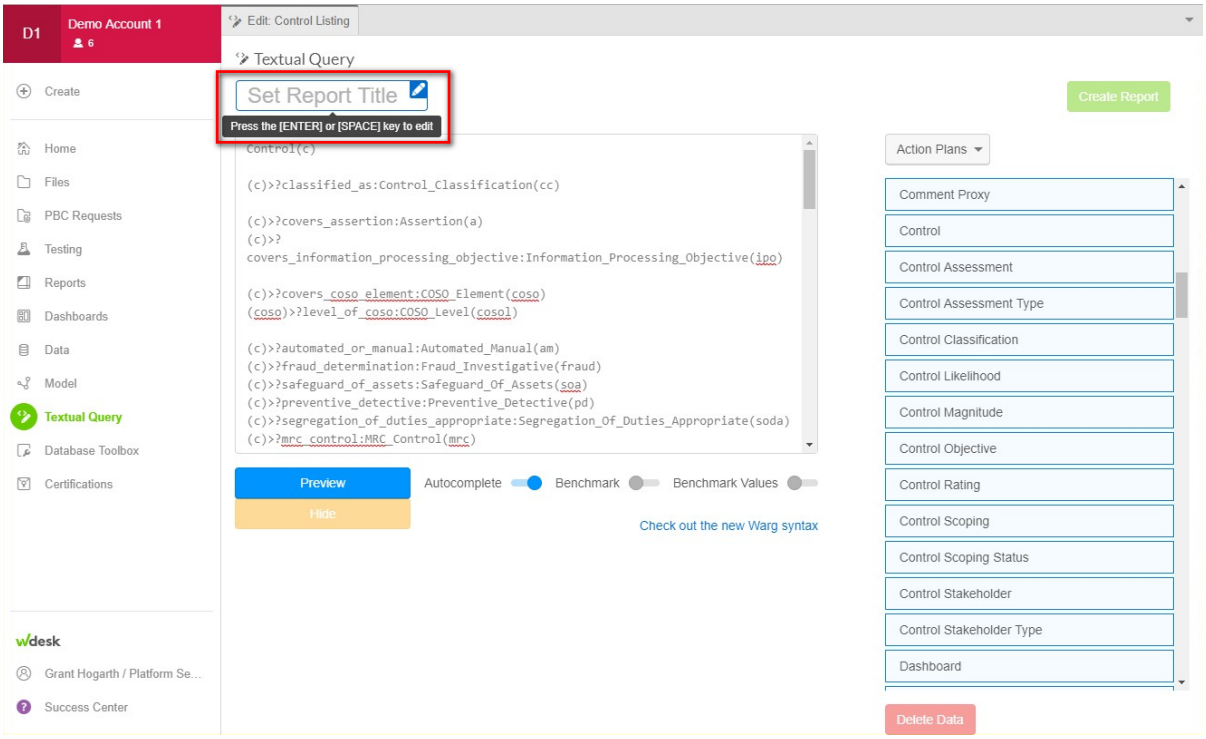
To construct a textual query add all your traversals first, then add your properties after all the traversals. The order of the properties is the order that they appear in the generated report.

Note: You have to name and preview your report before you can view it.



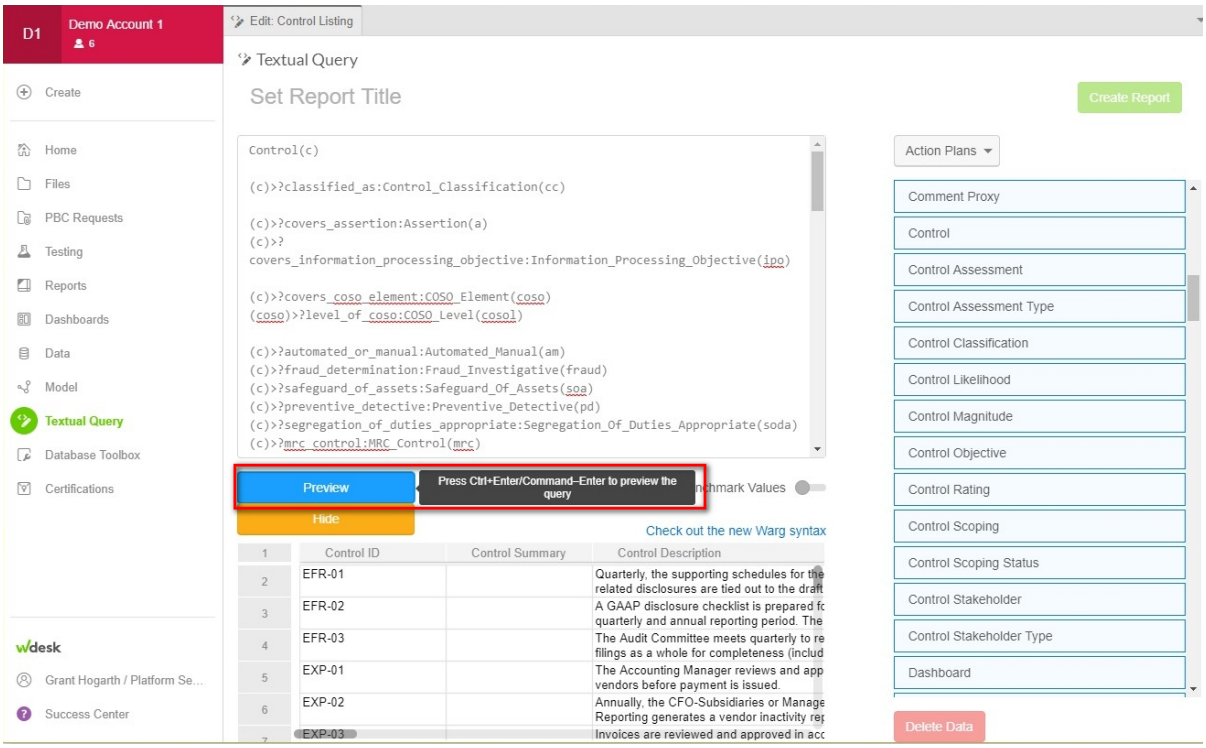
Naming a report

The name of a query report is what the customer sees in the **Report** tab. This can be renamed either from Textual Query or from the Report view.



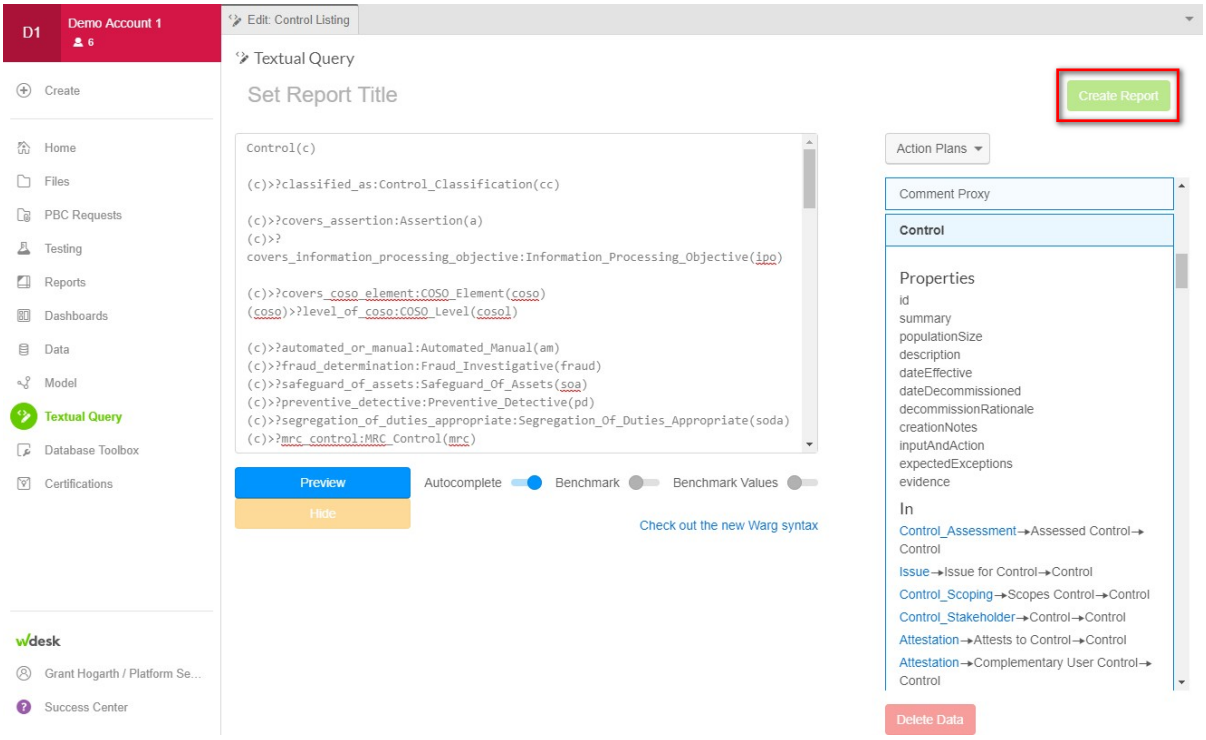
Previewing a report

To make sure that there are no errors in the query and that the report functions correctly, preview your report before you create the full version. Press Ctrl+Enter to see any errors.



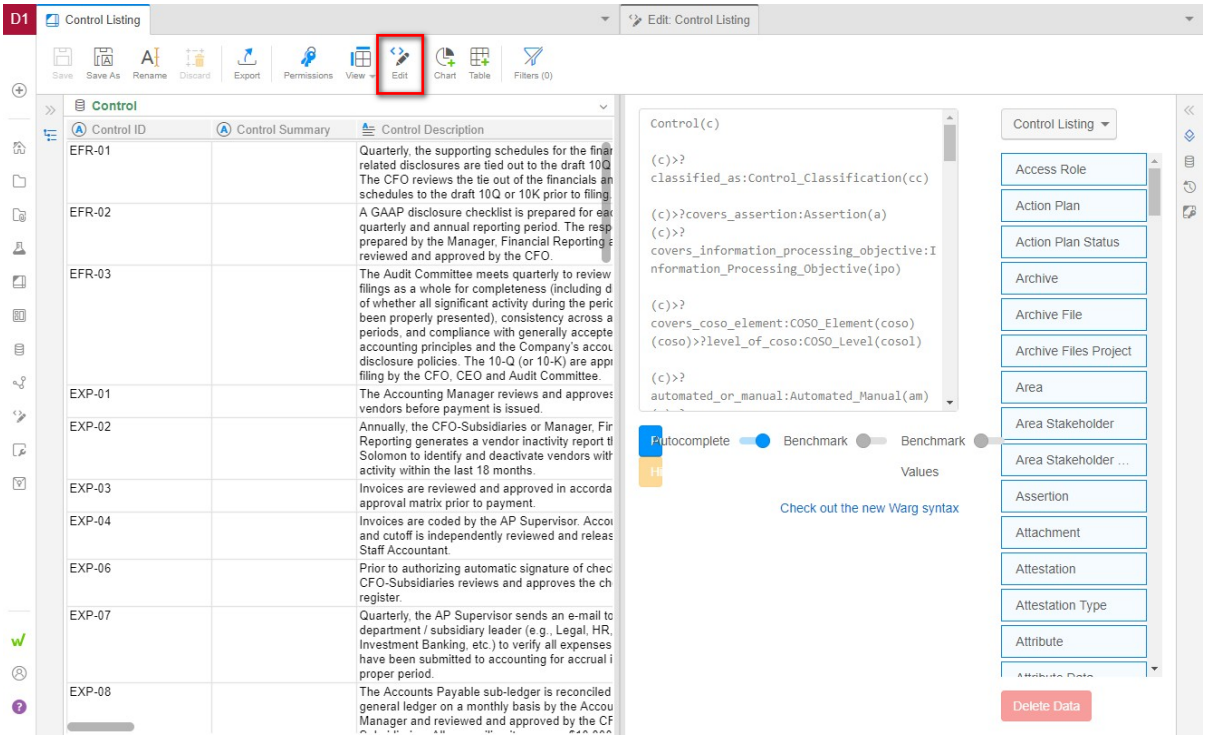
Creating a report

Creating a report adds the written query report to the report listings. The report is initially created without formatting, but the Report view allows you to add formatting. Remember that before you can create the report you must give it a title and preview it.



Editing a report

A report can be edited any time using ?debug functionality. Editing a report can be done in a separate tab from a report so that you can view the Textual Query and the related Report side by side to immediately see the effect of your changes.



Textual query elements

The textual query tool allows you to easily create reports based on a combination of data elements and query elements that are then filtered,

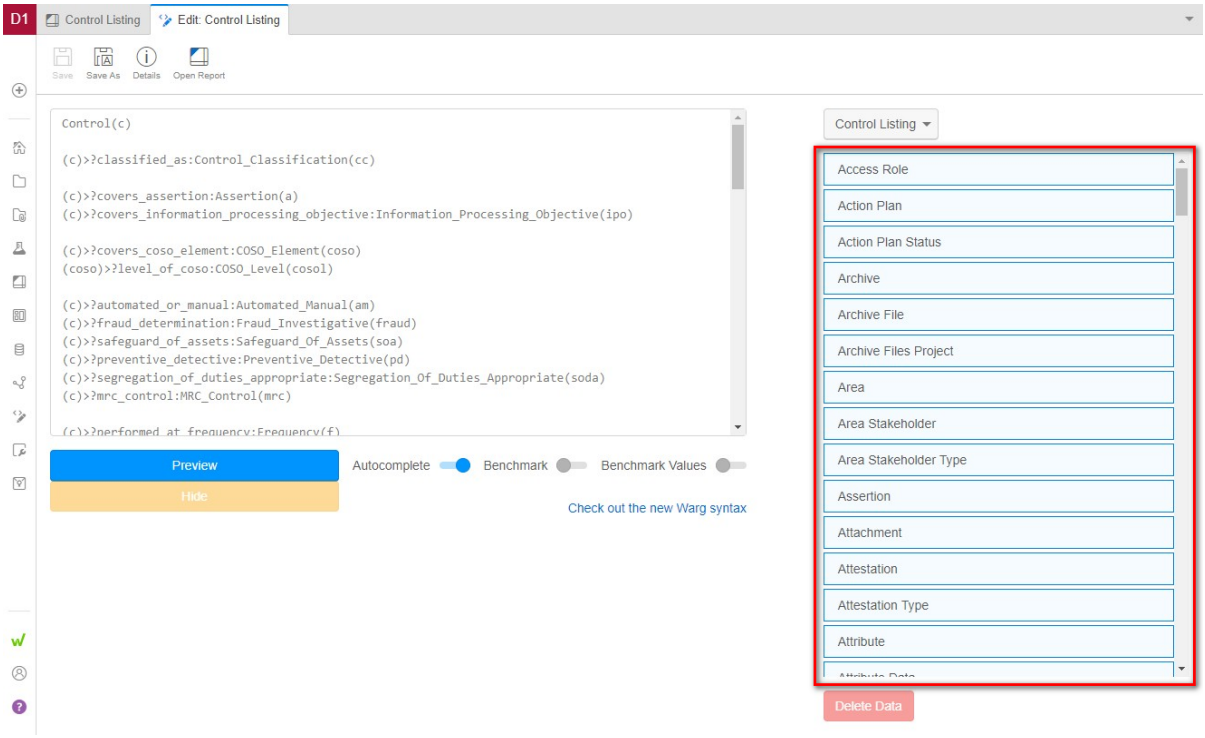
Data elements

Data types

Textual queries start using a single data type called the query index or anchor. Data types are then connected through relationships and the flow of information goes from one data type to the next. It is important to follow the model when connecting two data types. Sometimes relationships will exist between them, but the direction the information flows is important. Sometimes there may be multiple relationships — but only one needs to be used for a particular report.

Best Practice: For each data type, declare an abbreviation to use throughout the query. For example, "Control" is usually abbreviated as "c". Specify an abbreviation by listing the data type and then following it with the abbreviation, like this: Control (c).
Place each declaration on a separate line in the query.

All the data types are listed on the right side of the query builder, as shown in the following image.



Relationships (aka Traversals)

A relationship (also known as a traversal) is what connects two properties to each other. Textual queries use these relationships to link data in a report. In order for queries to work correctly, you need to create traversals that follow the model.

Best Practice: Start your query listing the traversals between data types as a group so that you do not get a large report that is hard to read.

All the relationships (both in and out) are listed under the data type properties on the right side of the screen. Paths are defined using a direction ('>' or '<') and an edge label. As you enter the text for your query, an auto-complete function will offer you options; using these can reduce the number of typographic errors.

For example, to find the process that a control is performed in, the process is specified through the edge 'performed_in_process', or edge name, that connects the Control vertex and the Process vertex.

```
Control(c)
(c)>?performed_in_process;
```

Next, you specify the data type the edge connects to at the end of the traversal.

```
Control(c)>performed_in_process:Process;
```

The last part of the traversal line is the label. The label is what is used when pulling in specific properties of a data type. In this case, it would look like the following.

```
Control(c)
(c)>?performed_in_process:Process(process);
process.name;
c.id;
```

Utilizing all these operations, you can define a tree-like traversal from any point in the graph. Every vertex that has a full path that matches this and is unique in the model will return results.

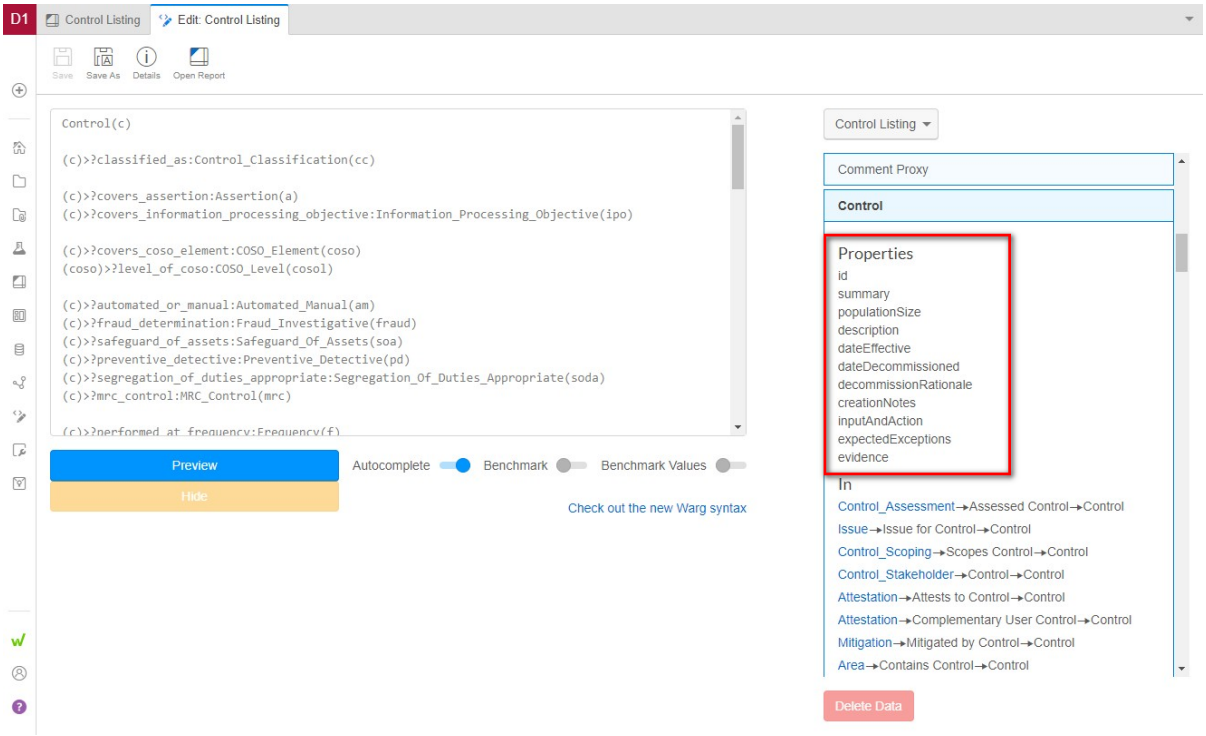
```
Control(c)
(c)>?performed_in_process:Process(process);
(process)>parent_process:Process(p1)
p1.name;
process.name;
c.id;
c.description
```

The query above pulls all controls that have a process and all processes that have a parent process. From this set, a selection of properties is returned.

Best Practice: Except for filters, make the traversals optional by adding a question mark after the > character (>?). Refer to Optional pathing for more information.

Data element properties

Properties exist within a data type to add detail about the instance. For example, a Control will usually have a Control ID and a Control Description. Sometimes there is only one property per data type instance. You can view all the properties of a data type by clicking on the data type on the right side of the page.



Property selection

Here is an example of selecting the starting vertices and pulling out a set of properties:

```
Control(c);
c.id;
c.summary;
c.populationSize;
c.description;
c.dateEffective;
…
```

Property labeling

A label identifies a vertex, allowing you to return to that vertex, or return multiple properties from it. You can insert a label at any point in a traversal.

Note: If you label properties, the labels will become the column heads in your report.

To identify a traversal, use the abbreviation that is added after the data type.

```
Control(c);
c.id "ID of Control";
c.description "Description";
```

This produces the following:

ID of Control	Description
C.AC.01	This is the Access control
C.ACC.01	This is the Account control

Query Index

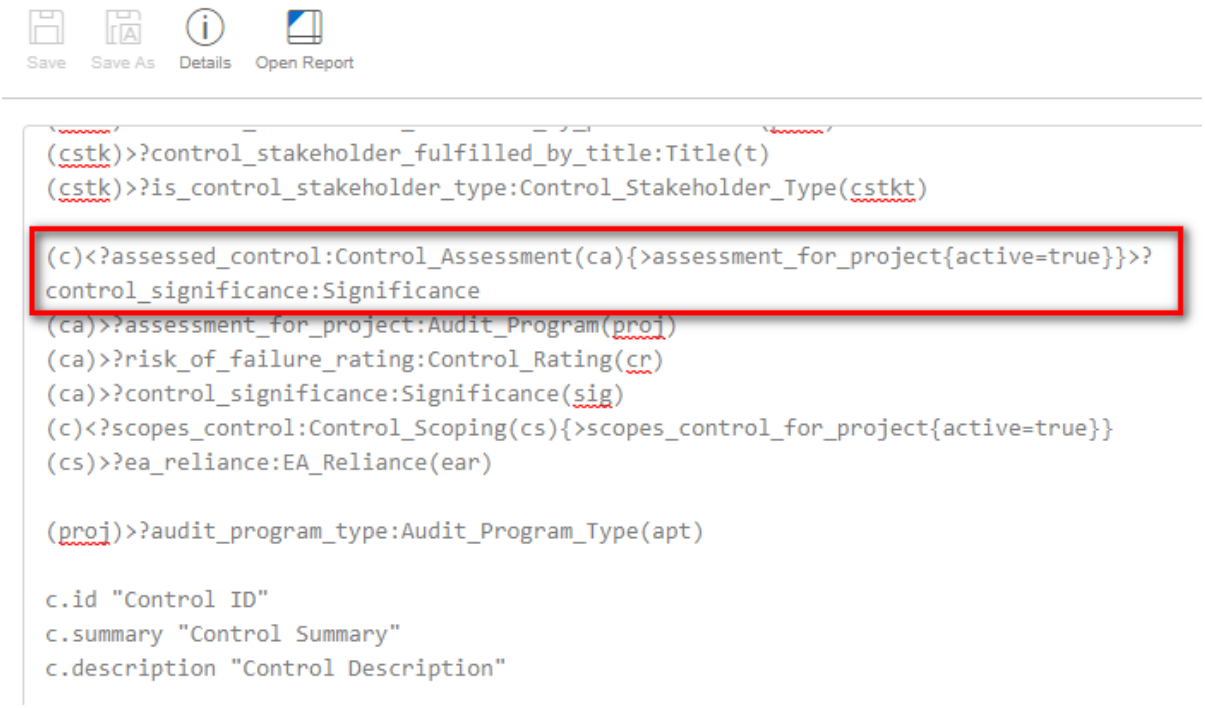
The query index is the anchor for the query and where you write the traversals. Linking one data type to the next connects your data so you can present it in a report. The query index is at the top of your query, with the properties below it.

To start a query index, choose a data type and then declare the relationship to another data type, using angle brackets (> or <) for direction indicators and specifying abbreviations for the elements. For example (c) for Control, or (stk) for Stakeholder. These abbreviations create shorter traversals and make it easier to add properties. Remember to surround abbreviations with parentheses.


```
Control(c)

(c)>?classified_as:Control_Classification(cc)

(c)>?covers_assertion:Assertion(a)
(c)>?covers_information_processing_objective:Information_Processing_Objective(ipo)

(c)>?covers_coso_element:COSO_Element(coso)
(coso)>?level_of_coso:COSO_Level(cosol)

(c)>?automated_or_manual:Automated_Manual(am)
(c)>?fraud_determination:Fraud_Investigative(fraud)
(c)>?safeguard_of_assets:Safeguard_Of_Assets(soa)
(c)>?preventive_detective:Preventive_Detective(pd)
(c)>?segregation_of_duties_appropriate:Segregation_Of_Duties_Appropriate(soda)
(c)>?mrc_control:MRC_Control(mrc)
```

Breadcrumbs

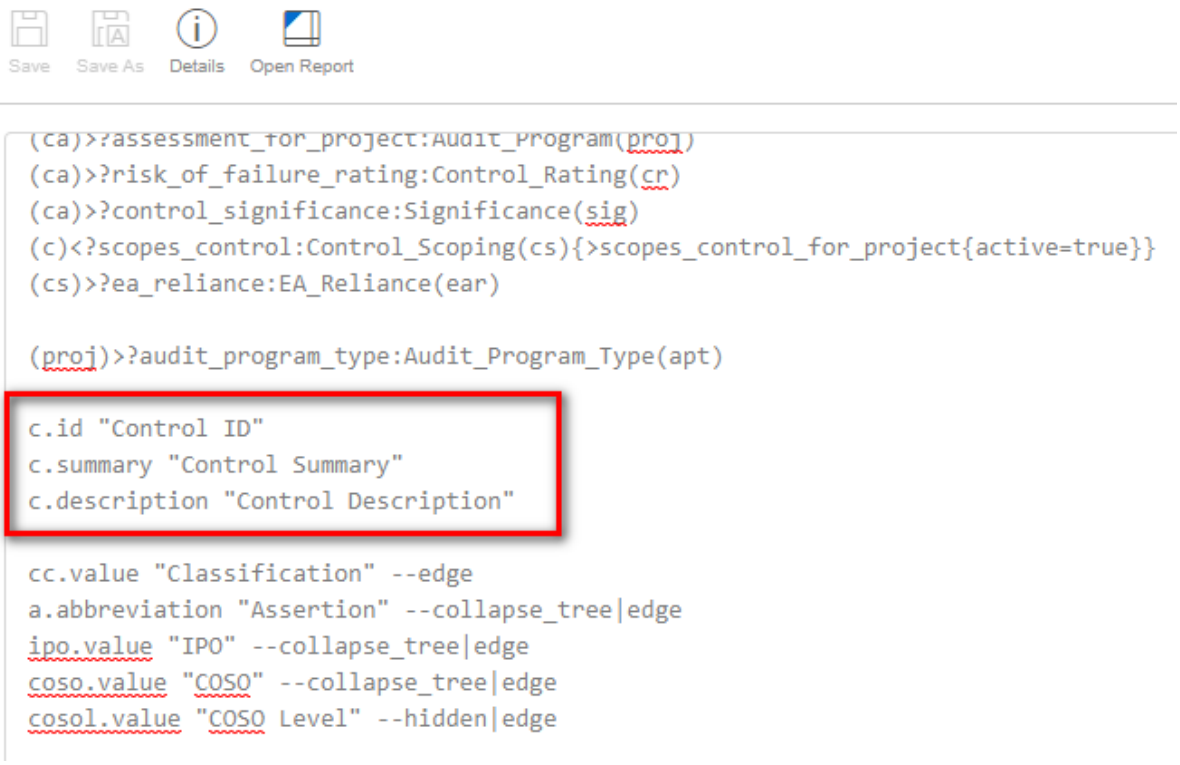
When creating a text query, the query index acts as a "breadcrumb" trail. These enable jumping from one property to the next, even if no relationship exists between them. Breadcrumbs can be relevant to the report or exist just to create a path between data types when there is no direct relationship.



Query element properties

Once the query index has been created, properties can be added to the query. To add properties, use the datatype abbreviations described in "**Query Index**".

Note: Properties cannot be created for any breadcrumbs that do not have an abbreviation.



Query requirements

The following items are required for queries:

- Anchors should be grouped by source traversal.
- Lines must end in a semicolon (;). You do not need to write this in the query as it will be auto-filled.
- Properties with special characters need to be quoted.

  Examples: `(c)."Manual/Automated"` or `(t)."#_of_samples"`.
- Every path must start at a defined location (the anchor), using one of these options:
  - A Person, Control, or equivalent type.
  - The @me token for user-centric queries (see User-centric reports for an example)

Traversals

Best Practice: All traversals on a report should be optional unless they are a filter. This allows edit and data creation policies to be correctly applied to the report.

Traversals vs Properties

For both Control and Risk there are reports which lists every single property for them, which can be used to make any other reports. Even if a query index is fully inclusive of all relationships and traversals, only the required properties need to be written for a report. This means that a report can contain the full model but only show certain properties.

Best Practice: If no properties of a data type are used, the traversal should be removed.

Filters

Filters make sure that customers don't see multiple rows of the same data or data that should not be on the report. Filters can be based on values and traversals, and in some cases both. Queries can perform filtering on any arbitrary step.

Best Practice: Place the filters at the start of your queries. For example, if you're filtering for all Automated controls, place the filter to return only Automated controls first. This reduces the amount of data that needs to be parsed by other filters.

There are 3 types of filtering; **Property Value**, **Reference**, and **Branch**.

Property Value filters

A property value filter is composed of three values:

- The property that exists on the vertex.
- The equality operator (= or !=).
- The quoted value to compare it against.

The following example shows only Automated controls:

```
(c)>automated_or_manual:Automated_Manual(am){value="Automated"}
```

The following example shows only controls that are NOT automated:

```
(c)>automated_or_manual:Automated_Manual(am){value!="Automated"}
```

Note: Highlighting the filter can also be placed directly on the query index, as shown in the following example:.

```
Control(c){>automated_or_manual{value!="Automated"}}
```

IMPORTANT: The quoted value must match EXACTLY what is in the database. You can use a pipe (|) to choose multiple values. For example:

```
Control(c)
(c)>?{>automated_or_manual{value="Automated"|"Manual"}}
```

Reference filters

A reference filter is composed of two values:

- An equality operator
- A reference to another vertex.

This filtering is useful for triangle-shaped data. The following query selects the Control, Location, and Person, where the Person and the Control are in the same Location.

```
Control(c)>locatedIn(l):Location;
(c)>ownedBy(p):Person;
(p)>locatedIn(l2):Location{=(l)};
c.name;
p.fullName;
l2.name;
```

Branch filters

A branch filter allows for filtering based on whether a branch exists or doesn't exist off of a vertex.

For example, `Person(p){!>locatedIn};` returns all the people that don't have a location set, but `Person(p){>locatedIn};` only returns people that have a `locatedIn` edge set. Any length branch can be used in a filter.

Examples of filters

Filter based off of a value

This example displays all Controls not yet decommissioned, along with those decommissioned after 1/1/2018 GMT.

```
Control(c){dateDecommissioned>1516492801}
(c)>?performed_in_process:Process(p)
```

Tip: To convert the date into a timestamp, you can use https://www.epochconverter.com.

This example will only return Controls that have do *not* have a Decommissioned Date.

```
Control(c){dateDecommissioned=null}
```

Filter off a value through a traversal

A classic example of this would be filtering the Control_Assessment for the current Audit_Program so that prior year assessments are not showing on the current RCM.

```
Control(c)
(c)<?assessed_control:Control_Assessment(ca)
{>assessment_for_project{active=true}}
(ca)>?assessment_for_project:Audit_Program(ap)
(ca)>?control_significance:Significance(sig)
```

Notice that when applying the filter on Control_Assessment, the filter allowed for an optional traversal of `Control_Assessment>Audit_Program`.

Filter based off a traversal

This example returns only Controls that have been mapped to a Process.

```
Control(c){>performed_in_process}
(c)>?performed_in_process:Process(p)
```

Multiple filters

Multiple filter values can be checked by using the pipe or bar ('|') OR operator. Multiple filters can be chained together to operate as an AND by including them in curly brackets ({}{}).

Note: Filters must be declared on the branch.

The following example uses the 'OR' function to include both SOX 2050 and SOC1 2050 Audit_Programs in the report.

```
Control(c)
(c)<?assessed_control:Control_Assessment(ca)
{>assessment_for_project{name="SOX 2050"|"SOC1 2050"}}
(ca)>?assessment_for_project:Audit_Program(ap)
(ca)>?control_significance:Significance(sig)
```

The following example uses the 'AND' function to link filters for Audit_Program and Significance.

```
Control(c)
(c)<?assessed_control:Control_Assessment(ca)
{>assessment_for_project{active=true}}
{>control_significance{value="Key"}}
(ca)>?assessment_for_project:Audit_Program(ap)
(ca)>?control_significance:Significance(sig)
```

Inclusion and exclusion filters

Text query filters can be constructed to require or exclude results. These filters can be added at the end of a traversal.

To require a property be *included* in the results, add `{Property Name="Filtered Item"}` at the end of your traversal.

Note: If optional pathing is added to a traversal, all items without a value for the property name will show up in the filtered list. If you want ONLY the filtered items to appear in the report, make sure to remove the optional pathing.

To require a property be *excluded* from the results, add `{Property Name!="Filtered Item"}` to the end of your traversal to filter out those records that have the specified property name.

Notes

- The "Filtered Item" value must match exactly.
- For multiple filters on the same traversal, use a single pipe (|).
  For example, `{Property Name="Filtered Item1"|"Filtered Item2"}`.

Morphism

A morphism allows a traversal between two data types in a query that could be completed by more than one path.

For example, determining the relevant process for an issue could be found by (path 1) traversing from the issue to the control and then to the process or by (path 2) traversing from the issue directly to the process if a direct relationship is provided on the issue.

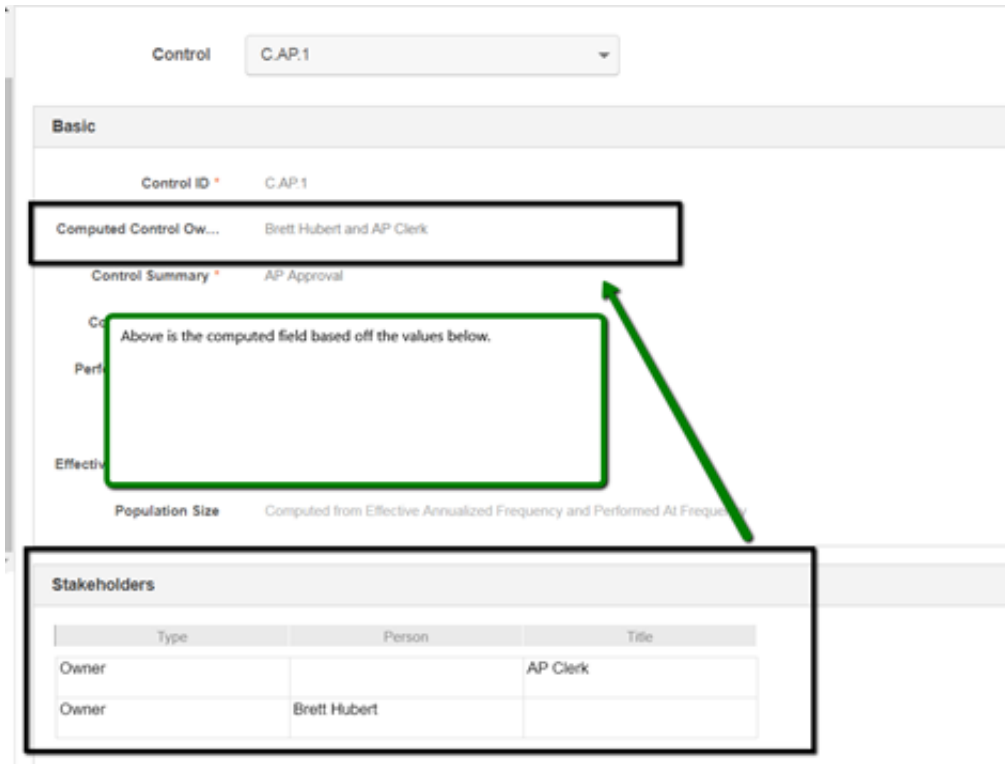
```
Issue(i)>A:Process(p);
|A=>indicates_issue_in_control>performed_in_process;
|A=>indicates_issue_in_process;
i.id;
p.name;
```

Note: It's rare, but your customer may have Stakeholder mapped to both Person and Title with a desire to link those values. The danger is that when using a join computation with ", " it will appear as if that individual has that title. Our recommendation is to use a different delimiter to avoid this issue.

```
  - name: "computedOwner"
    label: "Computed Control Owner"
    type: string
    computed:
    - "join"
    - "b.@display"
    - " and "
    - "<has_stakes_in_control{>is_control_stake holder_type{value=
\"Owner\"}}>A(b);| A = >?control_stakeholder_fulfilled_by_person;| A =
>?control_stakeholder_fulfilled_by_title"
```

Remember that when using any value filter, the escape key (\) is needed to allow for the quotation marks to be read.

The following image shows the output when the computedOwner is added to the form definition. Because this will be used for linking only, the property should always be marked as `ReadOnly: true`.



Optional pathing

Adding optional pathing means that properties are not required to be on both ends of the traversal to show the indicated element in a report. Optional pathing is denoted by placing a question mark (?) after a traversal marker (`>?` or `<?`). Without optional pathing, the data will appear in a report only if the properties on both sides of the traversal exist.

Note: While optional pathing should be used in reports to make sure edit and creation capabilities are correctly applied to the report, optional paths should not be used in filters.

Query prefixes

The following annotations all modify a query to make specific things happen when the report is generated.

Edge (to specify relationship editing in reports)

These should be used on properties that are not the anchor, a date or free text. It allows you to modify the relationship, rather than the property itself. The following example indicates the location column in the report should be treated as a relationship edit rather than a property edit.

```
Control(c)>locatedIn:Location(l);
(c)>ownedBy:Person(p);
c.name "Control ID";
l.name "Location" --edge;
p.fullName "Full Name";
```

Hidden (to hide an included column in a report)

These are used for reification; reification IDs must be included to allow downstream changes, but do not need to be seen on the report. The following example indicates that the "fullName" column in the report should be considered when rendering the report, but hidden from the table view.

```
Control(c)>locatedIn:Location(l);
(c)>ownedBy:Person(p);
c.name "Control ID";
l.name "Location";
p.fullName "Full Name" --hidden;
```

Tip: You can combine hidden and collapse_tree using a pipe.

```
--hidden|collapse_tree
```

For more information on using the pipe to combine multiple query elements, refer to Multiple Annotations.

linkToFocus

This creates a hyperlink that directs a user directly to the focus page.

Note: Currently, using linkToFocus with `--edge` still takes the user to the focus page instead of navigating them to where the relationship is used on the form. For example, if you add linkToFocus to a Control Classification output, clicking on the report value opens the Control Classification focus page instead of navigating to this edge on the Control form.

```
Control(c);
c.id "Control ID" --linkToFocus;
c.description "Control Description";
```

Collapsing

This concatenates the values into a single comma-separated row in the output. In addition, including this concatenates all the downstream traversals into single instances.

Note: Using `--collapse_tree` removes the ability to edit the collapsed column in a report.

Sorting

Sorting can be done by adding `--asc` or `--desc` to the property you want to be sorted. In the following example the results are sorted by Last Name in descending (Z->A) order.

```
Person(p);
p.fullName "Full Name";
p.email "Email";
p.firstName "First Name";
p.lastName "Last Name" --desc;
p.userName "User Name";
p.Title "Title";
```

This can also be used to sort groupTable items in custom form definitions. The following example sorts by Person in groupTable.

```
Control:
  - property: "id"
  - property: "description"
  - outgoing: "performed_in_process"
  - outgoing: "performed_at_frequency"
      isHiddenOnCreate: true
  - property: "dateEffective"
      isHiddenOnCreate: true
  - incoming: "has_stakes_in_control"
      isHiddenOnCreate: true
      componentType: groupTable
      filterQuery: Control_Stakeholder(cs);(cs)>?
is_control_stakeholder_type(cstkt);(cs)>?
control_stakeholder_fulfilled_by_person(pers);(cs)>?
control_stakeholder_fulfilled_by_title(t);cstkt.value
"Type";pers.fullName "Person" --desc;
```

Read Only

The readOnly annotation can be used to prevent content editing in a report column. Outside the report, normal permissions apply.

```
Person(p);
p.fullName "Full Name" -- readOnly;
p.firstName "First Name";
p.lastName "Last Name";
```

For more information on report permissions, refer to Permissions.

Auto-Complete

Data type * (all properties)

Adding * after your abbreviation automatically adds all properties of that data type to the query. The order of the properties may need to be altered to be consistent with the report being created, and report header labels may also need to be resorted.

Note: The line containing the asterisk will not appear in the query.

Best Practice: If there are properties that you do not want to see in the report, remove them from the query; do not tag them with --hidden.

```
Risk(r)
r.* --> turns into this:
r.id "Id";
r.title "Title";
r.description "Description";
```

filterQuery

This restricts the dropdowns on that column (but does not retroactively apply to layouts, so you have to add this to the report first). The following example uses a filterQuery to ensure the successful updating of Sub Process and Process.

```
Control(c)
(c)>?performed_in_process:Process(p)
(p)>?parent_process:Process(pp)

c.id "Control ID"
p.name "Sub Process" --edge|filterQuery ["Process(p)
{>parent_process};p.@id;p.name"]
pp.name "Process" --edge|filterQuery ["Process(p)
{<parent_process};p.@id;p.name"]
```

Note: Using the @id element here shows the datatype name property rather than the unique key that the database creates for the datatype instance.

For more information and examples, please refer to Using report dropdown filters.

Layout annotations

If your customer wants specific outputs (counts, sums, or views that are already pivoted) you can create them using layout annotations. This is not a common request.

Caution: This functionality may alter and may make the report not editable, but it can assist if a consolidated view is requested.

Option	Description
`--col`	Identifies the output line as one of the following: • A column pivot (if there is a --count or --sum output). The report can have only one column pivot. • A collapsed pivot (if there is a pivoted row without a --count or --sum in the report).
`--count`	Counts the values within the output line.
`--row`	Identifies the output line as a row pivot.
`--sum`	Sums the values of the output line if the property is a number or an integer.

Note: If you use `--col` with another column without including either a `--sum` or a `--count` annotation, then it will do a collapsed pivot.
If you use `--col` with another column using either a `--sum` or a `--count` annotation, then it will pivot as a column.

Example 1

The following example shows a pre-pivoted report (this can be used to count samples on Test_Phase, and sum hours logged on Test_Phase) that uses the Standard model with a few minor alterations.

```
Test_Phase(tp)
(tp)>;?test_phase_type:Test_Phase_Type(tpt)
tpt.name "Test Phase Type"--row
tp.extent "Samples in Phase"—count
```

This produces the following table:

Test Phase Type	Samples in Phase
Audit Planning	1
Design and Implementation	2
Interim	0
Remediation	0
Roll Forward	0
N/A	1

Example 2

The following example shows the effect of using `--row` for Controls and Significance instead of `--count` (this would be helpful if the customer wanted the Report Data grouped by Process, or Person).

```
Time_Entry(te)
(te)&gt;?time_for_test_phase:Test_Phase(tp)
(tp)&gt;?test_phase_type:Test_Phase_Type(tpt)
(te)&gt;?time_for_person:Person(person)

tpt.name "Test Phase"--row
person.fullName "Tester"--row
te.hours "Time Entry" -sum
```

This produces the following table:

Test Phase	Tester	Time Entry
Interim	Abraham Lincoln	6
Remediation	Abraham Lincoln	3
Rollforward	Abraham Lincoln	2
Walkthrough	Abraham Lincoln	4

Example 3

The following example shows Samples by Test_Phase_Type.

```
Sample(sam)
(sam)>?sample_items_to_test:Test_Phase(tp)
(tp)>?test_phase_type:Test_Phase_Type(tpt)
(tp)>?test_of_control:Test_of_Control(toc)
toc.id "Test of Control" --row
tp.name "Test Phase ID" --hidden
tpt.name"Test Phase" --col
sam.batch "Count of Samples" --sum
```

This produces the following table:

	Count of Samples	
Test of Control	**Interim**	**Walkthrough**
C.AP.1 - SOX 2050	68	0
FA-01 - SOX 2050	1	5

Multiple annotations

You can apply multiple annotations to a column. The following example includes `--edge`, `--collapse_tree`, and `--hidden` annotations:

```
Control(c)
(c)>?performed_in_process:Process(p)
(c)<?assessed_control:Control_Assessment(ca)
{>assessment_for_project{name="SOX 2050"}}
(ca)>?assessment_for_project:Audit_Program(ap)
(ca)>?control_significance:Significance(sig)
(c)>?covers_assertion:Assertion(assert)

p.name "Process" --edge
c.id "Control #"
assert.abbreviation "Assertions" --edge|collapse_tree
ca.idComputed "Assessment ID" --edge|hidden
ap.name "Audit Program" --edge|hidden
sig.value "Significance" --edge
```

This produces the following table:

Process	Control #	Assertions	Significance
Accounts Payable	C.AP.1	P&D, R&O	Key
Fixed Assets	FA-01	C, E/O, P&D, R&O, V/A	Non-Key
Fixed Assets	FA-02	C	
ITGC	IT-1		Key
ITGC	IT-1-Oracle		
ITGC	IT-1-WDesk		

Notice that the **Assertions** column does not show a drop-down UI icon. When a cell is selected there, the right-hand panel points you to that section of the Control form. Refer to the "**Collapsing**" section in Query Prefixes for more information.

Permissions

If your customer is granting create or edit permission to data from a report, you must make sure that data is on the report. It sounds redundant, but it can be confusing.

```
Control(c)
(c)>?performed_in_process:Process(p)
(c)<?provided_by_control:Mitigation(m)
(m)>?mitigates_risk:Risk(r)
(c)<?has_stakes_in_control:Control_Stakeholder(cstk)
(cstk)>?control_stakeholder_fulfilled_by_person:Person(per)

c.id "Control ID"
p.id "Process ID" --edge
p.id "Process ID" --hidden
m.idComputed "Mitigation ID" --edge|collapse_tree|hidden
r.id "Risk ID" --edge
cstk.idComputed "Stakeholder ID" --edge|collapse_tree|hidden
per.fullName "Stakeholder" --edge
```

Reification and permissions

Relationships that go through reification need to have the first required string property as an output line on the report. In the above example if a new stakeholder were to be added the end user would not have access to set the Control_Stakeholder_Type.

In the case where an ID is set to `--edge` but the customer wants the end user to be able to edit the ID, you may have to have present that property as a second output line (hidden) without a `--edge`. In the example above, you can see that Process ID is duplicated to allow for that.

Creating policies

When you are building your reports and the customer wants the end user to be able to create new data sets you will need to make sure that the customer is able to edit all required fields. If you have Risk "id" and "summary" as required, they will need to have access to a report with both fields (the output line can be `--hidden`).

Note: Newly-created data may not be included in a report if the data does not meet filter criteria. For example, if a user does not include an active audit period on a control assessment, the control will not show in a report filtered to show an active audit program.

Custom data types

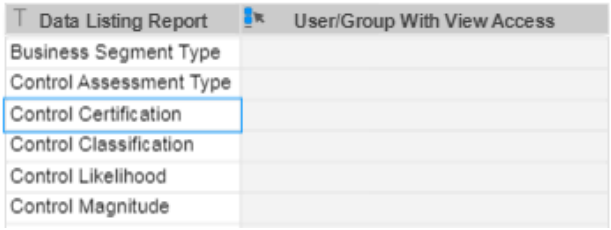
If you are adding custom data types for your customer, especially enumerated lists you will need to make sure that the end users and groups have access to this. The simplest way to do that is to continue the pattern on the "[_Admin Only_] Advanced Permissions - Data Listings" Report. It would look like this:

```
DataSource(ds){!<source:ReportView}
{@id="FocusType_Action_Plan_StatusProps_Only"|"FocusType_AreaProps_Onl
y"};
(ds)<?reads:AccessRole(ar);
ds.description "Data Listing Report";
ar.name "User/Group with View Access" --edge;
```

To add your custom data type, take the name from the YAML, and add "`FocusType_`" before and "`Props_Only`" after it. For example if you created "Control_Certification" as a new data type you would add it to the query as follows:

```
DataSource(ds){!<source:ReportView}
{@id="FocusType_Action_Plan_StatusProps_Only"|"FocusType_AreaProps_Onl
y"|"FocusType_Control_CertificationProps_Only"};
(ds)<?reads:AccessRole(ar);
ds.description "Data Listing Report";
ar.name "User/Group with View Access" --edge;
```

You will now see that data type in the report.



Best Practices for query formatting

Textual queries should use the following best practices for structure and formatting to make the queries consistent. Doing so makes it easier for anyone that has had query training to read queries written by someone else.

- The anchor (Query Index) should always be at the top of the traversal group.
- Properties should always be at the bottom of the traversal group.
- Properties should match the property order on the data type or match the most used report (for example, RCM).
- All traversals on a report should be optional unless they are a filter. This allows edit and data creation policies to be correctly applied to the report.
- If no properties of a data type are used, the traversal should be removed.
- Place filters at the start of your queries. This reduces the amount of data that needs to be parsed by other filters.

Report formatting

Adding or removing core model items

The textual query repository is based on the core model and each aspect of the core model is represented. However, if a customer's account does not include all data types and properties, or has different traversals, the queries must be adjusted to match.

Auto-complete and the right-hand panel will help, as they show the properties and the traversals that exist. If a traversal does not exist, look at the model to determine how the two data types are connected. If a property does not exist, there will not be the option to add the property.

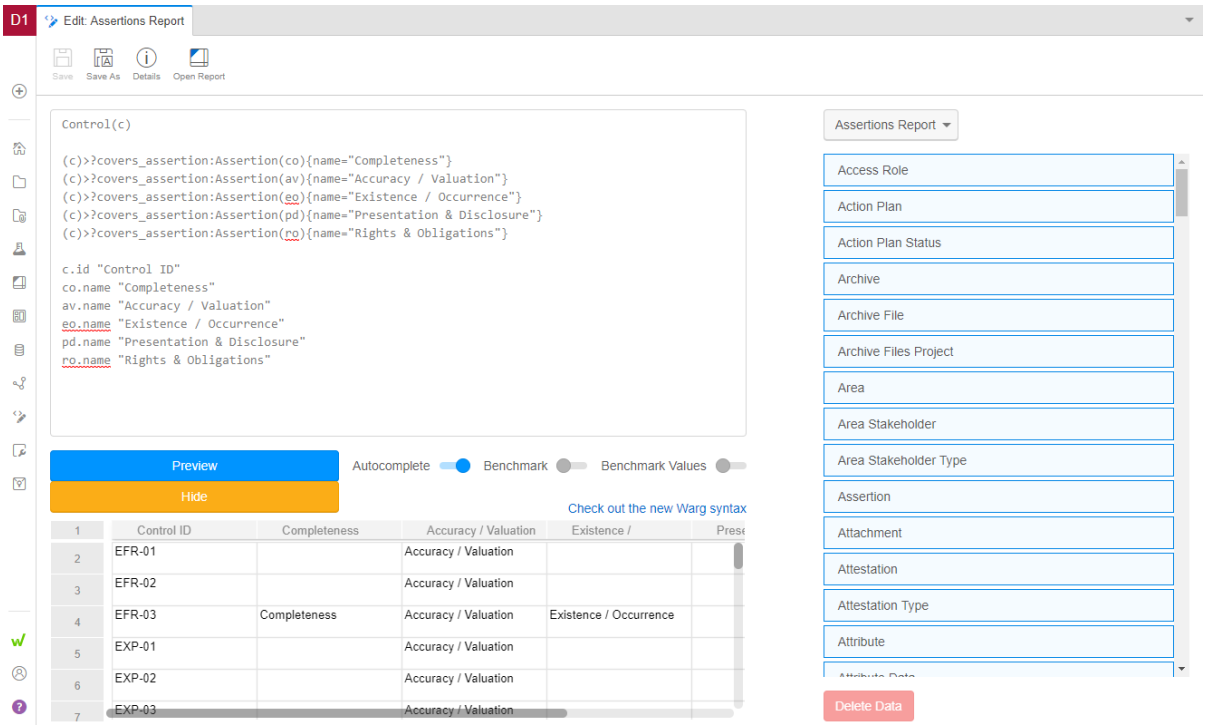
Financial assertions and COSO

Items such as financial assertions and COSO are more easily viewed as separate columns. To do this, create multiple filters on the same traversal. However, the traversal will have to be written each time with a different abbreviation for that filter.

Caution: Ensure you have optional pathing on all traversals.

For examples, see below.

```
Control(c)
(c)>?covers:Assertion(co){abbreviation="C"}
(c)>?covers:Assertion(eo){abbreviation="E&O"}
(c)>?covers:Assertion(ic){abbreviation="I&C"}
(c)>?covers:Assertion(pd){abbreviation="P&D"}
(c)>?covers:Assertion(va){abbreviation="V&A"}

c.id "Control"

co.abbreviation "C"
eo.abbreviation "E&O"
ic.abbreviation "I&C"
pd.abbreviation "P&D"
va.abbreviation "V&A"
```



Other features

User-centric reports

A user-centric report is a special type of report that shows only the data associated with a specific username and only show results where the instance of a username exist. These will always start with `@me` as the Person data type. Data admins can view what other users see in their user-centric reports by using the dropdown at the top of the report.

Permissions can be set on these reports. For example, in a report showing controls that a control stakeholder owns, the control stakeholder would only see the controls they own. If there are two controls, the control stakeholder will typically see two controls.

The following example shows a query which returns all controls assigned to me as a user through Person and some of the characteristics of these controls.

```
@me(per)

(per)<control_stakeholder_fulfilled_by_person:Control_Stakeholder(cstake)
(cstake)>has_stakes_in_control:Control(c)

(c)>automated_or_manual:Automated_Manual(am)
(c)>performed_at_frequency:Frequency(freq)
(c)>preventive_detective:Preventive_Detective(pd)

c.id "Control ID"
c.description "Control Description"
```

```
am.value "Automated/Manual" --edge
freq.value "Frequency" --edge
pd.value "Preventive/Detective" --edge
```

Traversal edge alternation

This example shows a traversal that returns any Persons connected to interim tests, design tests, or end-of-year tests.

```
Person(p)>interimTests|designTests|eoyTests(test);
```

Report size

Checking the sizes of reports is important, as very large reports can cause performance issues. The maximum number of rows supported for a report in the Production environment is 50,000 rows.

You can check the size of the report by enabling the **Benchmark** or **Benchmark Values** options in the textual query tool.

Enabling **Benchmark** displays the following values:

- Layout time
- Layout size
- If the query returns fewer rows than the production environment maximum.

If all of these items are small, the text is green. As these values move closer to the limit, they will turn orange. If any of these reach the limit, they will turn red. If you see values in orange, you may notice some performance issues; you should look at ways to make the report smaller.

Enabling **Benchmark Values** shows more detail than Benchmark. This displays the following values:

- Subgraph time
- Subgraph vertice count (how many records are being returned)
- Subgraph edge count
- Subgraph size
- Tree time
- Tree size
- Flat time
- Layout size
- Overflow

Typically you would enable **Benchmark Values** when a query does not return a preview. For example, it can help you quickly determine if the query is returning more than the production environment maximum.

Textual query FAQ

Question: Why can't I edit a column in a report that has multiple records (--collapse_tree is applied)?

Answer: When `--collapse_tree` is applied, even if there is an edge in the query, you must use the right-hand panel to edit the column. This forces the user to select which relationship within that collapsed field they want to edit.

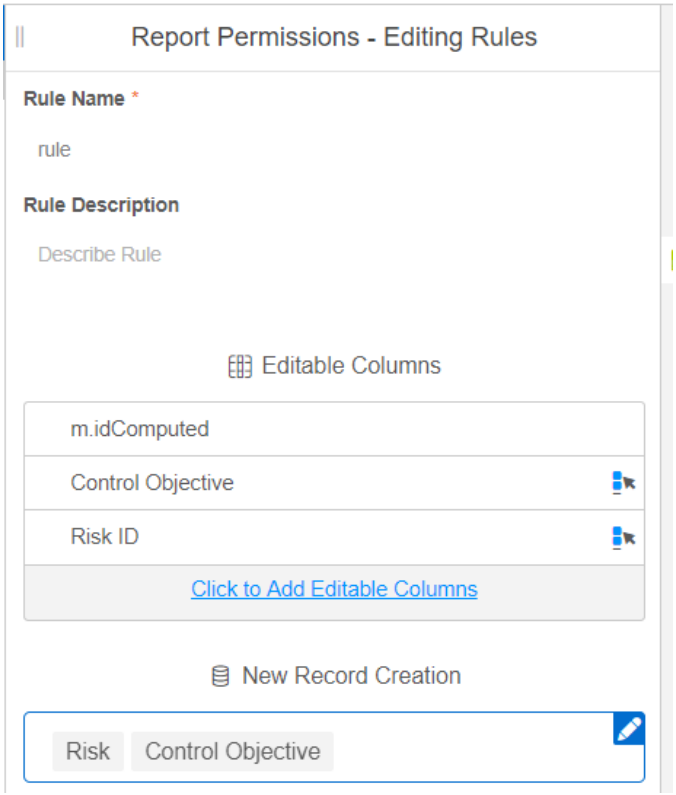
Note: When data is combined in a single column and there are no duplicate rows in the column then that specific field cannot be edited in a report.

Question: Why can't I edit the Risk or Control Objective values when I have an editing rule applied?

Answer: When using any reification type you must also add the root of that reification to both the query and your editing rule. For example, Risk and Control Objective are tied together through Mitigation. The query would need to look something like the following:

```
(c)<?provided_by_control:Mitigation(m)
(m)>?ensures_control_objective:Control_Objective(co)
(m)>?mitigates_risk:Risk(r)

m.idComputed --edge|hidden|collapse_tree
co.id "Control Objective" --edge
r.id "Risk ID" --edge
```

The editing rule should appear something like the following image:

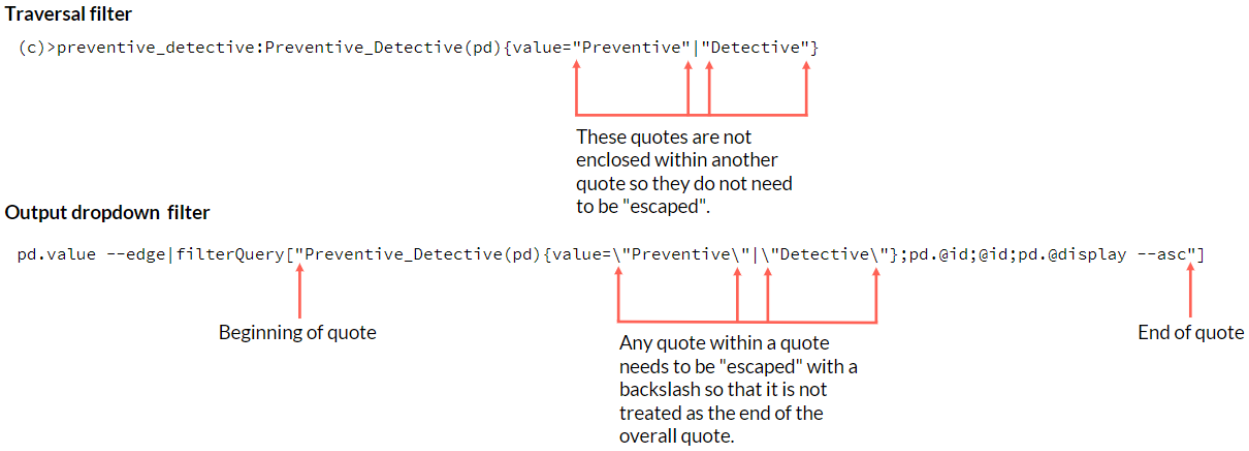


Using report dropdown filters

Similar to filtering record views, edge dropdown options on a report can be filtered using a filter query. Filtering is performed on a report output line by sending that output to a filter query using the "pipe" character (|):

```
alias.property "Column Header" --edge | filterQuery
["<query_performing_filter>;alias.@id;alias.@display --asc"]
```

Because the filter query itself is contained within quotes, any quotes within the query must be escaped.



The filter query ends with two outputs:

- The first must be the @id of the datatype
- The second is the property that will be displayed in the dropdown.

Notes

Keep the following items in mind when creating and using report dropdown filters:

- In almost all cases, the best strategy is to use @display as the property displayed in the dropdown.
- The @display property is always going to be the first required property of a datatype.
- Always add --asc after the second property (usually @display), otherwise the drop-down will be sorted alphabetically by GUI.

```
Control(c);
(c)>?performed_in_process:Process(p){>is_process_type:Process_Type{value="Sub"}};
(p)>?parent_process:Process(pp){>is_process_type:Process_Type{value="Parent"}}

c.id
pp.name "Parent" --readOnly
p.name "Sub" --edge|filterQuery ["Process(sp)>is_process_type:Process_Type{value=\"Sub\"};sp.@id;sp.@display --asc"];
```

- Output filters are applied in sequence, so each subsequent output filter limits the dropdown options in a report. An example of this can be seen with hierarchy data types such as Process, where there are two Process columns (Sub-Process and

Parent Process), but you will only want to show the respective records in the two columns of the report. This will maintain the structure of the hierarchy.

Examples

- A filter that excludes instances with particular property value:

  ```
  pd.value "Type" --edge|filterQuery ["Preventive_Detective(pd)
  {value!=\"Both\"};pd.@id;pd.@display --asc"]
  ```

- A filter that includes instances matching particular property values:

  ```
  pd.value "Type" --edge|filterQuery["Preventive_Detective(pd)
  {value=\"Preventive\"|\"Detective\"};pd.@id;pd.@display --asc"]
  ```

- A filter that includes instances with a specific relationship:

  ```
  coso.value "COSO" --edge|filterQuery["COSO_Element(coso)
  {>level_of_coso{value=\"Component\"}};coso.@id;coso.@display --
  asc"]
  ```

Process

Parent Process

```
p.name "Parent Process" --edge|filterQuery
["Process(p)>is_process_type:Process_Type{value=\"Parent Process
\"};p.@id;p.name --asc"]
```

Sub-Process

```
sp.name "Sub-Process" --edge|filterQuery
["Process(sp)>is_process_type:Process_Type{value=\"Sub-Process
\"};sp.@id;sp.name --asc"]
```

Business Segment

Parent Business Segment

```
bsp.name "Parent Business Segment" --edge|filterQuery
["Business_Segment(bsp)>is_business_segment_type:Business_Segment_Type
{value=\"Parent Business Segment\"};bsp.@id;bsp.name --asc"]
```

Child Business Segment

```
bsc.name "Child Business Segment" --edge|filterQuery
["Business_Segment(bsc)>is_business_segment_type:Business_Segment_Type
{value=\"Child Business Segment\"};bsc.@id;bsc.name --asc"]
```

Understanding report permissions and rules

Overview

Permissions that are set on reports give non-admin users access to view and edit specific data. Permissions on reports not only drive what a user can access within that report, but also what the user can access within the data experience and records.

For step-by-step instructions on how to set up report permissions, please refer to Understanding report permissions and rules.

Reports for reviewing role assignments and permissions

The following reports enable you to see what roles and permissions have been assigned to users.

- **[__Admin Only__] Advanced Permissions - Data Listings** — Use this to grant non-admins view access to all enum records.
- **[__Admin Only__] Advanced Permissions - Reports** — Use this to apply viewer permissions to reports. Just because a user has permission to view a file doesn't mean they have permission to edit it.
- **[__Admin Only__]Advanced Permissions - by User** — Use this to see what permissions each user has. This report shows the user's admin status, what group access role applies to them, what reports they have access to, and the editing policy that applies to them with the editing policy description.

Best Practices

During an implementation, it is important to ensure reports are written to allow for the appropriate permissions. When writing reports that will be used to grant user permissions, there are a few items you will want to keep in mind.

- Use optional pathing throughout the report to allow new permissions to be set.
- Ensure that the display property is included the report, even if it is a hidden output.
- Ensure that appropriate annotations are used to allow a user to edit relationships when necessary.
- All customers must be trained on how to grant, create, and maintain permissions on reports.
- Permissions may be set up as part of the implementation; however, it is typically something the customer will set up as they begin using the database.

Working with dashboards

Overview

Dashboards provide a centralized location to quickly display relevant information from the Wdesk database using charts and tables.

You can create custom dashboards to display your data to fit your needs. Dashboards allow you to aggregate and compare data, allowing you to transform data into information and communicate a story to a team or set of stakeholders.

Charts and tables are based on data that comes from existing reports. Configuring charts and tables in different ways provides new ways look at your data and gain insights. You can see the data being displayed in a specific chart and then drill down to see more details. You can also aggregate data as custom views which can be saved to use again later.

Remember that dashboard access is controlled by permissions.

Modifying default dashboards

Included in the shell account is a set of dashboards that have been created from existing reports in the shell account. To see a list of these dashboards and their details, please refer to Shell account dashboards.

The following items should be considered when preparing the default dashboards:

- Review the shell account dashboards before presenting them to a customer.
- Remove any charts or tables that your customer does not have data for. For example, if they do not have locations as part of their data, then you should remove any charts that use the location data. You may also want to add a few charts or tables for any data that is specific to your customer.
- Consider whether a dashboard can be populated directly from the database or whether it needs to be connected to a spreadsheet in order to perform calculations before being linked out (for example, to a chart in a presentation). Refer to Connecting a sheet to a data source for more information on connected sheets.
- Check all dashboards to see that all charts are displaying correctly. If a chart shows the message "Cannot be displayed", it could be because the chart no longer exists or the report data is not present. If either of these is the case, remove the chart from the dashboard or replace it with a chart based on your customer's data.

Once you have the default dashboards properly prepared, work with your customer to determine if there are additional dashboards they want to have and what information they would like included on those dashboards.

Working with form definitions

This chapter covers how to work with form definitions.

Overview

The shell account includes a number of standard form definitions that are based on the SOX model. These may need to be modified to match any model updates made for your customer, or to remove information that your customer is not using from the standard model.

Discuss with your customer which properties and relationships they would like to see on their record view for each data type (this would be a good time to determine which elements should be hidden from non-admin users as well).

Make the following changes in the form definitions:

- **Remove** any property/relationship that should not be included in the record view.
- **Add** any properties or relationships that have been added to the model for your customer.
- **Reorder** all properties/relationships to the order they should appear in the record view.
- **Change** "alwaysReadOnly" to "true" to make a property read-only (it will appear dimmed).

Using the Form Definition Experience

The Form Definition Experience allows you to create and configure form definitions to create a structure that users see when viewing their data within the Data tab.

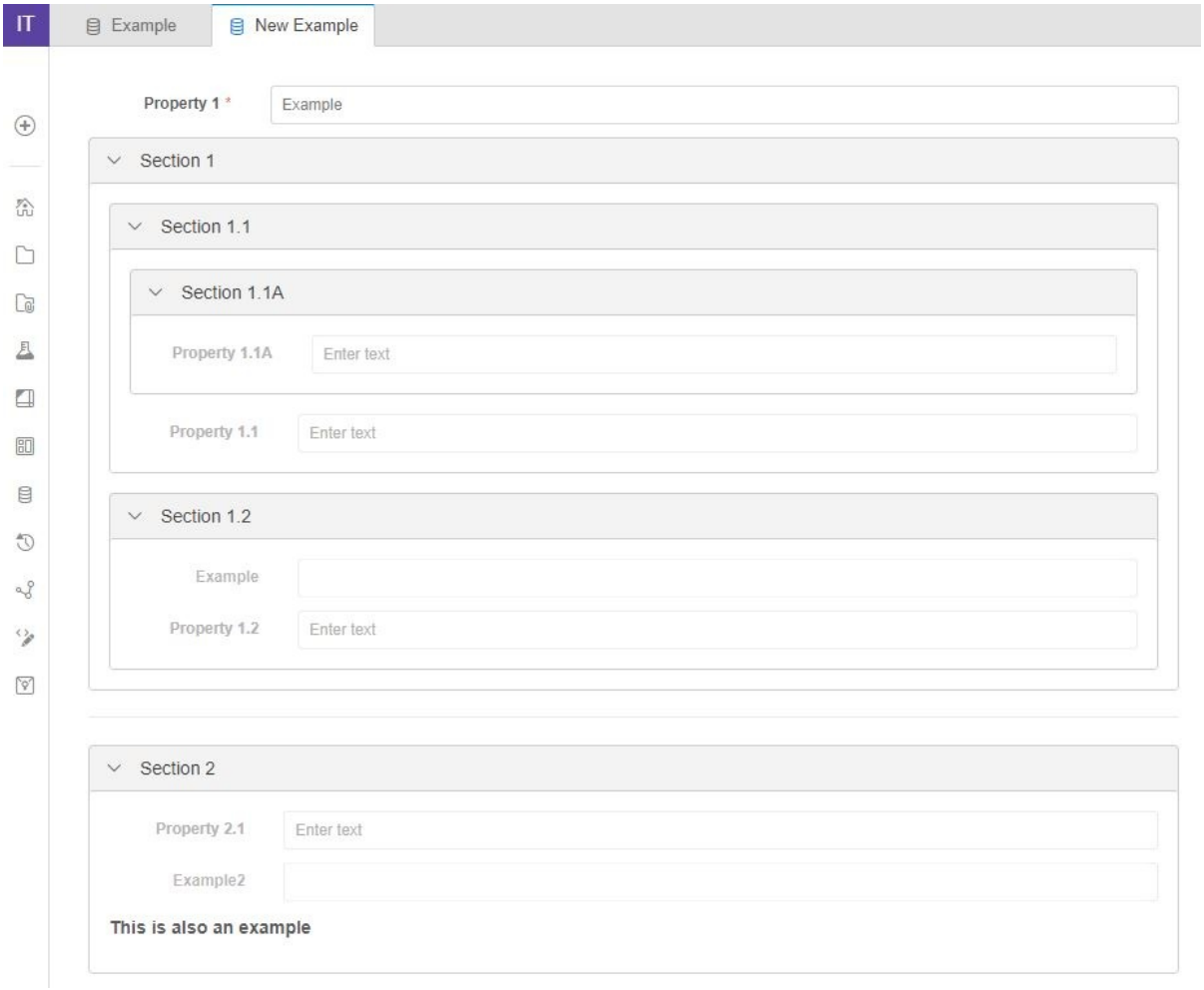
There are four elements in a Form Definition:

- Section
- Component
- Relationship
- Property

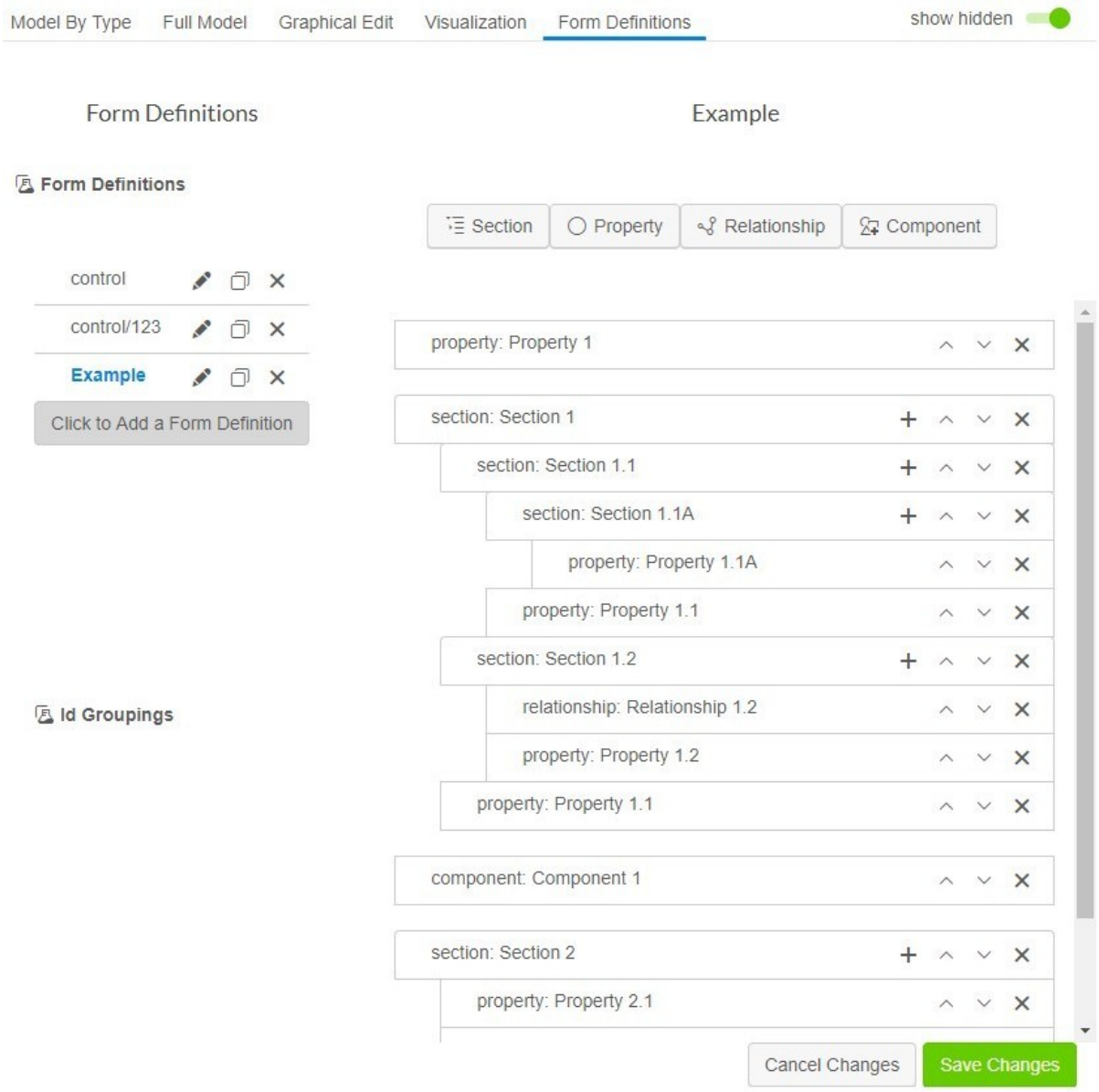
Sections are the only element that may contain other elements. A Section may contain any of the other elements, including another section, and there may be multiple instances of an element inside the Section element. (That is, a section may contain one or more Sections, each of which in turn, may have one or more Relationships or Properties.)

The following images show different views of the same information in the Record View and Form Definition Experience.

Record View



Form Definition Experience



Creating a form definition

To create a form definition using the Form Definition Experience:

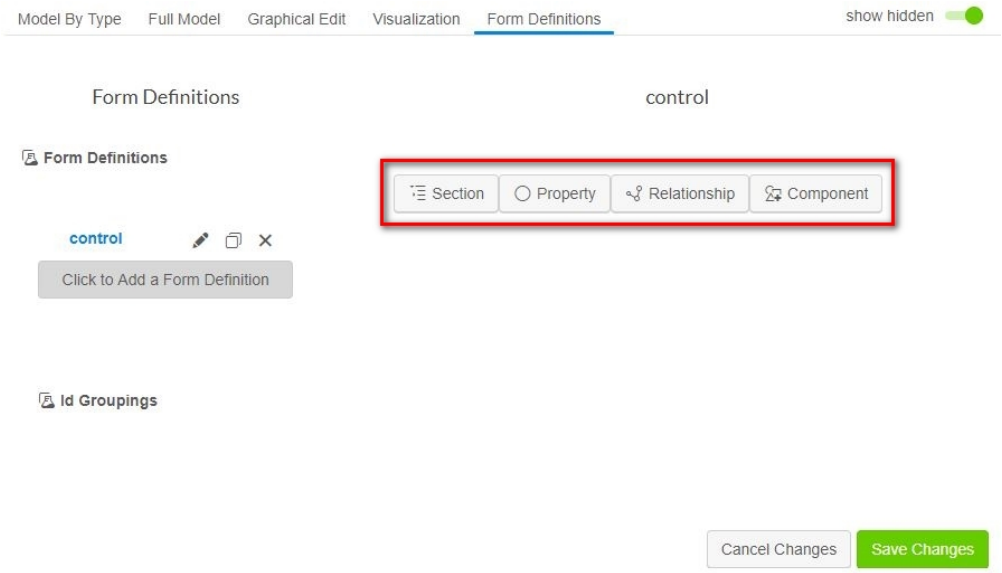
1. Add `?debug` to the URL and refresh the browser page.
1. Click **Database Toolbox** in the left menu.
2. In the Database Toolbox, click **Form Definitions** in the left menu.
3. In Form Definitions, click **Click to Add a Form Definition**.
4. Enter the name for your form definition in the dialog.

   IMPORTANT: The name must match the Data Type exactly in both case and formatting.

5. Click **Add**.

   The Form Definition name is displayed in the list of available form definitions on the top right side of the screen, and buttons for Section, Property, Relationship, and Component are displayed on the right side above it.

   Note: The order and structure in which the items are displayed on this panel is the order and structure they will appear in the form.

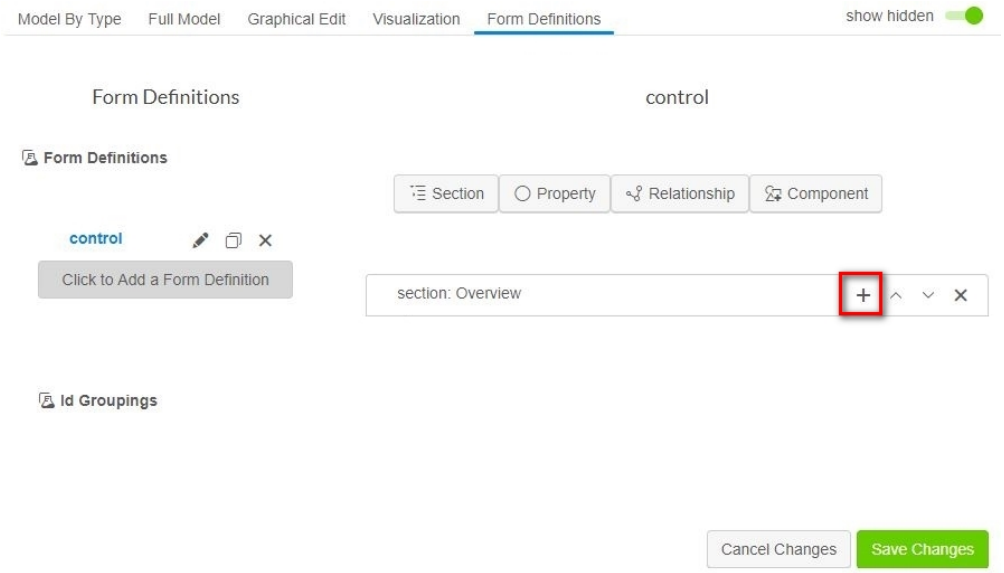


6. To add an element to the Form Description, click the button associated with that element (Section, Property, Relationship, or Component). This opens an "Add new" dialog specific to that element. The new element will be added below any existing elements.
   - **For Sections** — the "Add new" dialog asks you to provide a name for the section.

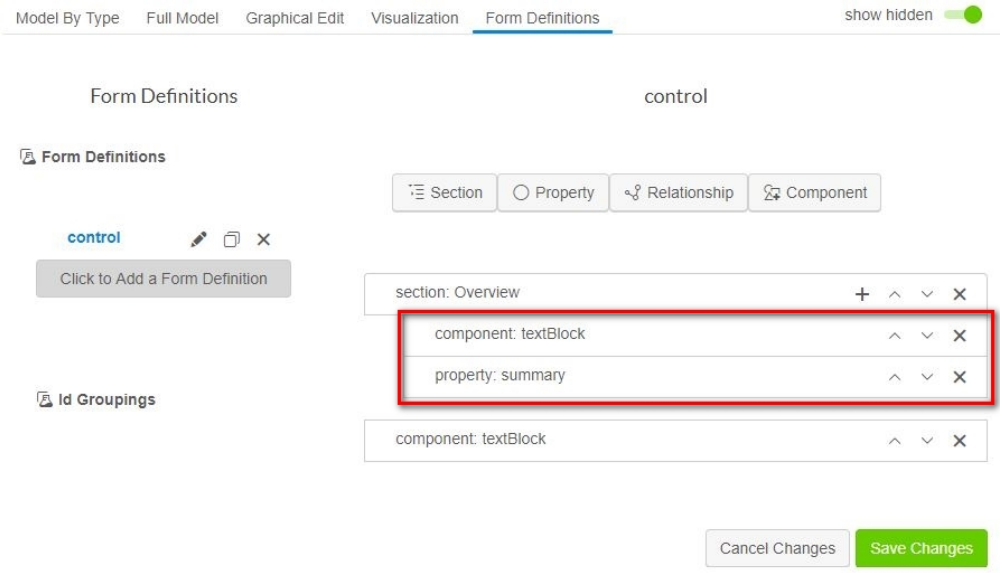
     Note: Only sections may contain any other elements.
   - **For Properties** — the "Add new" dialog asks you to provide a name and a descriptive tool tip for the property. You can also specify if the property is always read-only, and if the label for the property is hidden or shown.
   - **For Relationships** — the "Add new" dialog asks you to provide a name and a descriptive tool tip for the relationship, and to specify if the relationship is always read-only. You can also specify the following elements:
     - The component type
     - A query filter

       Best Practice: Workiva recommends that you use a textual query to check the query, then copy/paste the validated query text here.
   - **For Components** — the "Add new" dialog asks you to provide a name for the component. You can also specify the component data.

- To add a child element (Section, Property, Relationship, or Component) to a Section, click the '+' icon in the section, and select what is to be added to that section.



Example of sub-elements



Editing a form definition

To edit a form definition using the Form Definition Experience, use the following procedures. You can modify, delete, or reorder any of the elements in the form definition. You can also rename the form definition.

Renaming a form definition

IMPORTANT: Form definitions should only be renamed if they are being copied and expanded for extended purposes.

To rename a form definition:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. In **Form Definitions**, click on the pencil icon for the form definition you want to rename.
5. Enter the new name in the dialog that is displayed.
6. Click the green **Edit** button to save the change.

Modifying a form definition element

To modify an element of a form definition:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click on the pencil icon for the form definition you want to modify.
5. Click on the element of the form definition you want to modify. A dialog showing the options for that element is displayed.
6. Make your changes and click "**Edit** <element>" to save them.

Changing the form definition element order

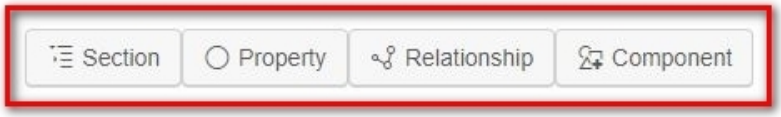
To change the order of elements in a form definition:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click the up or down arrows at the right end of the element box to move the element up or down in the processing order.

Adding a form definition element

To add a form definition element:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click on the desired element button and provide the needed information for it.



The selected element will be added at the bottom of the form, but you can move it elsewhere at the same level by using the location arrows described above.

Adding a sub-element to a form definition section

Note: Only sections can have sub-elements. Sections can also have sub-sections.

To add a sub-element to a form definition section:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click the **+** icon at the right end of the form definition section that you want to add a sub-element to.
5. In the "Add item to Section" dialog, use the **Type** pulldown to select the type of element (Section, Property, Relationship, or Component) that you want to add.
6. Click **Add**.
7. Complete the following in the "Create new <element type> to Section" dialog.
    a. Use the **Name** pulldown to select the value to be used for the property name.
    b. Enter a tooltip in the **Tooltip** field to explain the new element.
    c. Use the checkboxes to select if the new sub-element is
        - Always read-only
        - Hidden on Create
        - Has a hidden Label
8. Click **Add New <element type>** to add the property.

    The selected sub-element will be added at the bottom of the section, but you can move it elsewhere within the element by using the location arrows at the end of the sub-element row.

Deleting a form definition element

To delete a form definition element:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click on the '**X**' icon for the sub-element you want to delete within the element. Repeat if you want to remove more than one.
    - To save your changes, click **Save Changes**.
    - To cancel all changes you have made, click **Cancel Changes**.

Duplicating a form definition

You can duplicate an existing form definition to save the time and effort of creating from scratch. This allows you to create a base form, and then use the duplicate function to clone the form. You can then expand the clone to create different test sheets without having to reenter all the form information that is common to the various sheets.

To duplicate a form definition:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
1. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
2. Click **Form Definitions** in the left menu.
3. Click on the duplicate icon for the form definition you want to copy and enter the new name in the dialog that is displayed.
4. Click the green **Add** button to save the change.

Note: for additional information, refer to Advanced configuration options and Testing form definitions for information on testing form definitions.

Deleting a form definition

To delete a form definition:

1. Enter debug mode by adding `?debug` to the URL and refreshing the page in your browser.
2. Click **Database Toolbox** in the left menu. The **Database Toolbox** opens in a new tab.
3. Click **Form Definitions** in the left menu.
4. Click the **X** icon at the right end of the entry of the form definition you want to delete.
5. Click **Delete** to confirm the deletion or click **Cancel** to abandon the deletion.

Testing form definitions

A testing form definition is the same as any other form definition, however, it starts with a double underline (__). The configurable regions of a test form are created from the form definition.

Make sure that your configured testing form has the proper starting type or instance for the definitions of fields, relationships, and tables. Use the following table for guidance.

Tab	Section	Form Definition Name (Key)	Form Model Type Starting Point	Supported Scopes
Overview	Control Information	__ControlInformationSection	Control	• By Account (default if specified) • By Type of Project/Audit Program • By Audit Program Year
	Testing Information	__TestInformationSection	Test_Of_Control	Same as ControlInformationSection
	Deficiencies and Remediation	__IssuesAndActionsSection	Test_Of_Control	Same as ControlInformationSection
All Phase Tabs*	{Test Phase Name} Testing	__TestPhaseSection	Test_Phase	Same as ControlInformationSection plus By Test Phase Type By Specific Test Phase (that is, unique to that one tab of a specific testing sheet)
All Phase Tabs*	{Test Phase Name} Conclusions	__TestPhaseConclusions	Test_Phase	Same as TestPhaseSection

Best Practice: The easiest way to create new test phase-specific form definitions is to duplicate an existing form definition and then modify the duplicate.

Advanced configuration options

The test form can be unique within a given account. When trying to resolve the configured section, Wdesk has a priority order that uses a pattern that specifies that if a more granular configuration is specified, it overrides a less specific one.

The following table outlines the format for more granular specificity and the corresponding rationale as to where/when/why this might be useful for a given implementation.

Resolution Priority	Form Definition Name (KEY)	Behavior
1	__TestPhaseSection/ <test_phase_id>	Makes a unique definition for a specific phase with in a single form. (The most granular definition possible, because this only applies on tab of a form within a single audit program.)
2	__TestPhaseSection/ <test_phase_type_id>	Makes a unique definition for a phase type. This allows the definition of unique fields for the Design (Walkthrough) phase that won't show on the Test of Effectiveness phases (Interim, Update, etc).
2	__ControlInformationSection/ <program_type_id>/<program_id>	Makes a unique definition for a given type of audit and audit year (e.g. SOX 2018 form config vs SOX 2019 form config).
3	__ControlInformationSection/ <program_type_id>	Makes a unique definition for a given type of audit (e.g. SOX form config vs SOX1 form config).
4	__ControlInformationSection	Default, account scoped.
varies	__TestInformationSection/*	Sub scopes are same as __ControlInformationSection (see above for description of behaviors).
4	__TestInformationSection	Default, account scoped.
varies	__IssuesAndActionsSection/*	Sub scopes are same as __ControlInformationSection (see above for description of behaviors).
4	__IssuesAndActionsSection	Default, account scoped.
5	__TestPhaseSection/ <program_type_id>	Makes a unique definition for a given type of audit (e.g. SOX form config vs SOX1 form config).
6	__TestPhaseSection	Default, account scoped
varies	__TestPhaseConclusions/*	Sub scopes are same as __TestPhaseSection (see above for description of behaviors)
6	__TestPhaseConclusions	Default, account scoped.

Component Types

The following component types can filter dropdown options, organize fields on a record view, control the display of record elements, and determine the field format.

Note: componentType: table can be used for any custom table.

Component Name	Functionality
component type: groupTable	• Adds a table to show reified relationships, including the ability to add, remove and update. • Areas that commonly use tables: mitigation, control assessment, control scoping, risk assessment, etc. **How to create:** Combine with filterQuery to write a query on a single line, use a semi-colon for a new line **TIP:** Use textual query for auto-fill, then copy/paste he result.
component type: break	• Adds a line to break up areas of the focus page. • Areas that commonly use breaks: splitting properties and relationships. **How to create:** Add a break component.
component type: section	• Adds a section header. • Areas that commonly use sections: reified areas, inherited areas, testing information, etc. **How to create:** Add a section and title, then indent the items (component tables can be included).
component type: hidden on create	• Identifies which properties and relationships are hidden when creating a new record. • Areas that commonly use this component type: testing information, reified edges, etc. **How to create:** Add isHiddenOnCreate.
component type: label hidden	• Hides the left hand label. • Areas that commonly use this component type: issues and action plan table and other test form tables. **How to create:** Add isLabelHid.
component type: filterQuery	Filters dropdown options on record views. Areas that commonly use this component type: process and control. How to create: Add a filter query and filter on the relationship type. Note: Make sure to use @id and @display.

Common shell account variations and form definitions

As "Control Stakeholder" can be tied to either a person (Pat Smith) or a title (Accountant), we provide forms you can use for both cases. The sections below describe which forms to use for each case. The forms can be found on the Partner Portal.

Control Stakeholder tied to a Person

If Control Stakeholders are tied to a **Person**, use the following forms:

- Use **control_stakeholder_fulfilled_by_person** for the **Control_Stakeholder** form. This form uses the edge to **Control_Stakeholder_Type**, **Control**, and **Person**.
- Use **control_stakeholder_fulfilled_by_person** for the **Control** form. This form includes **Person> assigned_title> Title** as part of the groupTable. If your customer does not tie their people to titles, remove this from the groupTable.

Control Stakeholder tied to a Title

If Control Stakeholders are tied to a **Title**, use the following forms:

- Use **control_stakeholder_fulfilled_by_title** for the **Control_Stakeholder** form. This form uses the edge to **Control_Stakeholder_Type**, **Control**, and **Title**.
- Use **control_stakeholder_fulfilled_by_title** for the **Control** form. This form includes **Title> assigned_title> Person** as part of the groupTable. If your customer does not tie their people to titles, remove this from the groupTable.

Other data types where the same general guidance applies are: Process Stakeholders, Risk Stakeholders, System Stakeholders, Document Stakeholders, Business Segment Stakeholders, Issue Stakeholders, and Area Stakeholders.

Setup outside the database

This chapter has the following sections to help you with the setup after you get the database established:

Using flowcharts

This section provides information on flowchart setup, formatting, and linking.

Overview

Flowcharts are Wdesk presentations used for SOX reporting. There are no specific formatting guidelines, so these documents vary by customer. Generally, "flowchart" refers to a single file containing several different slides. For general information on working on Wdesk presentations, see Presentations in the Workiva Customer Success Center.

IMPORTANT: Flowchart setup, formatting, and linking should all take place in the Production workspace.

Best Practice: As the number of slides per flowchart can vary, use slide count for scoping and tracking progress.

Flowchart setup

Check with your customer whether the flowcharts should be imported as individual files, or consolidated into a single presentation. If your customer wants a single file, you still need to import each individual file, and then after merging them, go back and delete the individual files later.

Note: As the number of slides per flowchart can vary, it is better to use slide count when scoping and tracking progress.

Flowchart setup questions

This section covers questions you want to have answered for flowchart setups.

Files and import

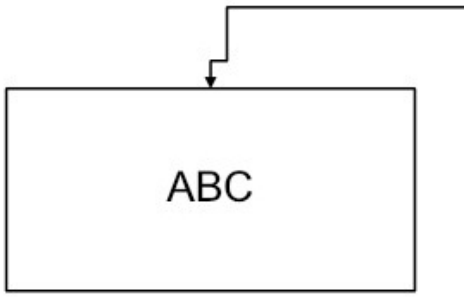
- Does your customer want each flowchart to be an individual document or have them combined into one large presentation?

Master slides

- Which slides should share a master slide, and which should have an individual master?

Lines

- If there are arrows not pointing to connection points, can you move the point to where it can be connected to the shape?
- Should lines such as the one below be cleaned up or recreated to match?



Swimlanes

- Does your customer have standard swimlane templates?

Shapes and tables

- If your customer uses a shape that is not in Wdesk, what shape should it be replaced with?
- If text does not fit within a shape, how should this be handled? Do all similar shapes need to be replaced for consistency? Possible solutions include:
    - Smaller or different font
    - Larger or different shape
    - Edit text to be shorter
- Do lists in shapes and tables need to be actual lists, or are you able to leave them as-is?

Format

- What font(s), size(s), color(s), spacing(s), etc. are required?
- For slight formatting differences that do not involve the master, do you need to follow a "template" in your formatting, or should you match each slide as closely as possible?

Working with flowcharts and presentations

- If your customer wants a single presentation file, you will still need to import each individual file using the steps in the Importing flowcharts to presentations section. You will then need to merge the individual files into one presentation.
- To merge presentations, you can copy and past an entire slide from one presentation to another.
- Once you have merged the individual presentations into a single presentation, remember to delete the individual presentations as they are no longer needed.

Copying content from one presentation to another

To bring content from one presentation to a second presentation:

1. Create new master slides, if necessary in the presentation you are pasting into. Pay special attention to slide dimensions.
2. Select the slide you want to copy.
3. Right-click and select **Copy**.
4. In the second presentation, use **Ctrl + V** to paste the entire slide.

Importing flowcharts to presentations (NextGen)

To import a PowerPoint or Visio file:

1. Click Create Presentation
2. Select **File**> **Import**.
3. Locate and select the file you want to import and click **Open**.
4. Click **Import**.
   The file is then imported. You should expect to spend time reviewing the file to confirm that all the slides are the way your customer wants them.

Tip: If you are working with many presentations in a larger project, make sure you remember to organize your imported presentations.

Working with images

- If you need to snip an image (such as a company logo) keep any white space around it to a minimum. Your customer should be able to provide high-quality images.

Flowchart linking questions

This section covers questions you want to have answered for flowchart linking.

Description discrepancies

- What should you do if the descriptions don't match?
- What should be done if the description is only slightly off rather than completely different?

Unclear linking

- What should you do when what needs to be linked is not clear due to the arrangement of the content?

ID matches

- Should the IDs match exactly?
- If the original IDs only have numbers and not prefixes, is there a way to know how content should be linked from the database?
  In this case, check with your customer, perhaps there is a report that you can use.

Text in shapes

- What to do about text that is too long for the shape it is part of?

Flowchart linking best practices

This section covers best practices for linking in flowcharts.

Navigating the database

- Selecting a risk or control from the large data set always opens a new tab in the database.
- To get the data you need to link, click **Data** in the left navigation area, This lets you navigate to either "Control" or "Risk" data. If you do not see the **Data** icon, reach out to your Workiva Support Team for assistance.

  Once you are viewing the correct set of data, you can click on any risk or control to bring up the details. From there, you can search for any control or risk you need by clicking the dropdown at the top of the page and entering the desired ID.

Caution: Sometimes the information in one field (for example, "Control Summary") will appear to match that of a different field (for example, "Control Description"). Make sure you are still linking from the correct field so that updates flow through correctly.

Tip: If you are having to go back and forth between Risks and Controls, keep one tab open for each rather than navigating to the large data set.

Description discrepancies

If descriptions don't match, get in touch with your customer to discuss the problem. You will most likely be told to do one of the following:

- Link over it — the database is accurate.
- Leave a comment so your customer can review it.
- Link AND leave a comment.

  Discuss these solution options with your customer or Workiva Support Team to determine what should be done if the description is only slightly off rather than completely different.

ID matching

Generally, you will be linking Control and Risk IDs and descriptions from the database unless you are told otherwise.

In general IDs should match exactly. You can use prefixes to help make them unique. If the original narrative only has a number and not a prefix check with your customer to see if there is a way to know how it should be linked from the database. There may be a report that you can reference.

Linking formats

Wdesk formats new links based on the preceding character and not the replaced content.

If you are having difficulty reformatting a link (this is common), link over all but the first character of the original content. This way, the new link will be created with the existing format. Remember to go back and remove that first character afterward.

IMPORTANT: It is not possible to format within a link. If only the first half of the original description is bold, you will either have to bold or unbold the entire link. Check with your Workiva Support Team if you need additional guidance.

Text in Shapes

Often control and risk IDs are significantly longer in the database than the ID on the PDF. If you run into this, discuss the appropriate course of action with your customer. Most likely, you will do one of three things, possibly in combination with resizing the font:

- Leave as-is, with text overflowing the shapes.
- Move the text into a textbox on top of the shape. Then resize the shape as needed.
- Keep the text in the shape and resize to fit accordingly. Note that this method will likely take significantly more time and may be difficult in slides where shapes fit closely together.

  Best Practice: When linking, keep text within the shape.

Process and format

If the content did not change when it was put into the database, you should be able to search for the ID and then link to the existing information.

IMPORTANT: Make sure you are not changing formatting as you do this! If formatting does change while linking, make sure you reformat it back.

Unclear links

You may come across instances where it is not clear exactly what needs to be linked due to the arrangement of the content. For example a shape might have two IDs and one description. In these instances, always check with your customer or Workiva Support Team. Customer input will likely be needed.

Master slides

Master slides help you keep a common or standard look across all the slides in a flowchart presentation.

Creating master slides in Classic Wdesk

To create a master slide in Classic Wdesk:

1. Open the presentation you want to add the master slide to.
2. Select **Master Layouts** under **Presentation Outline**.
3. Click **Add Master**.
4. Name the new layout, and click **Add Layout**.
5. Make the desired changes to the master slide.
6. To assign a master to a slide:
    a. Select the slide group, then the specific slides in the left-hand panel.
    b. Click the "apply master slide" button  and select the master slide to be applied.

Creating master slides in NextGen Wdesk

To create a master slide in NextGen Wdesk:

1. Open the presentation you want to add the master slide to.
2. Click **View**.
3. Click the **Masters** slide button 

.
4. Click the new master slide button  in the left-hand panel.
5. Make the desired changes to the slide.
6. Name the new layout, and click either **Back** in the top (Blue) bar or **Exit Masters** in the **View** toolbar.
7. To assign a master to a slide:
    a. Select the slide.
    b. Open **Slide Properties** in the right panel.
    c. Use the **Slide Master** dropdown to select the master slide for this slide.

Master slide best practices

This section covers best practices for using master slides.

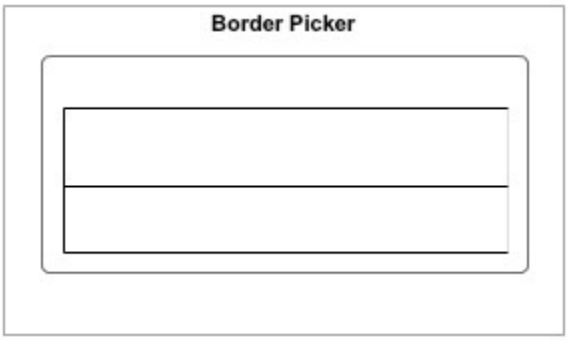
- We strongly recommend that you use masters to keep the appearance of the slides consistent throughout the flowchart presentation.

  TIP: Look through the slide deck before creating the masters to determine what will be needed.
- Don't create one master slide for each display slide if you can avoid it.

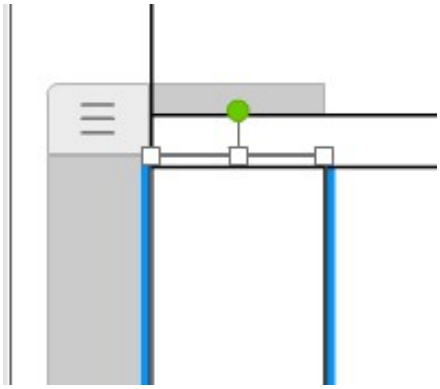
- You will likely have a master slide for your main slides and a master slide for your legend (if applicable). Typically, a main slide master will contain a table for a header and subheader, as well as a table for the swimlane headers.
- After you have created the presentation, step through it and remove any unneeded masters.
- Master slides are the only way to change the size of slides.

  The maximum size for slides created in Wdesk is 100 inches. However, you can import slides with larger dimensions.

  If a slide looks much larger than normal, double-check the dimensions. If the slide is larger than 100 inches, discuss with your customer if this size is needed.
- Sometimes slides have slight but noticeable differences in content that goes into the master — the width of swimlanes, slide dimensions, etc.
  - Clarify with your customer which slides require new masters to be created and for which you can reuse a single master.
  - For other slight formatting differences that do not involve the master, clarify whether you should standardize the files or match each slide as closely as possible.
- Don't include borders where you will later have a line/ elbow connector. Refer to Swimlanes for more information.



- It can be hard to line up your header and swimlane tables. Make sure you arrange them left (or wherever the borders have to meet). You can then add a fill to one, send the other to the back, and push it a bit behind the other. This will ensure smooth lines without gaps.

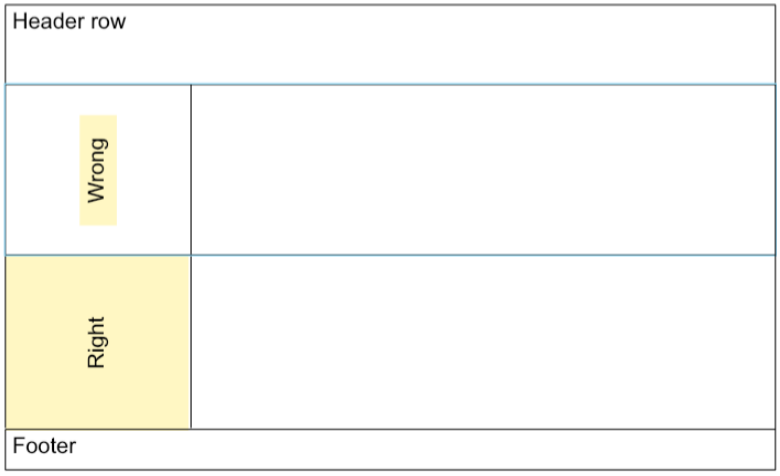


Lines and text and boxes

The following sections provide Best Practices and recommendations for working with graphic elements.

Header text boxes

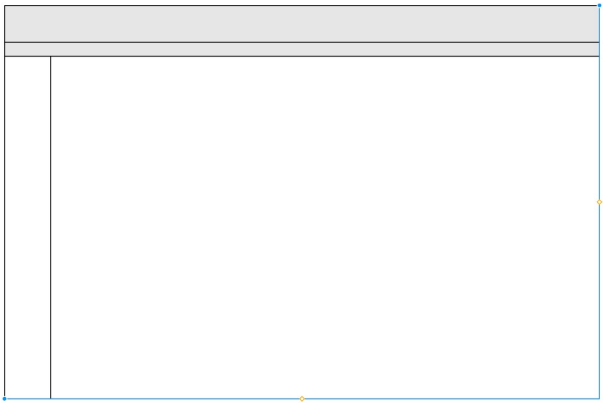
- For main and swimlane headers, use a text box with no border and no fill. You will be attaching your swimlane elbow connectors to this shape, so it is important that it fills up the entire space between where its borders appear.



- To make sure your text boxes match the tables you made for your master, you can create them on your master slide. Snap the text box to the existing shapes, and then copy that text box into your main slides (remember to delete it from the master!). It should maintain both its size and location on the slide. Then you can copy and paste from slide to slide, adjusting the swimlane header heights and location as needed.

Swimlanes

- Swimlanes often import as text boxes, which you will have to delete and replace with elbow connectors connected to the bottom left point of each swimlane text box and the top right of the header text box. Remember to remove the arrowhead.



Lines

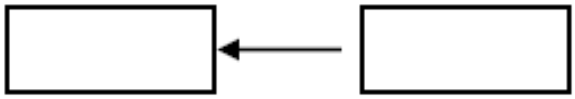
- All lines should be connected to shapes.

  Sometimes imported lines will appear to be connected even if they are not. You can do an initial check by clicking on the arrow. Blue filled dots indicate that the line is connected to the shape. White or unfilled dots indicate that you need to connect it to the shape. Ideally, you want each end of a line to be connected to a shape.

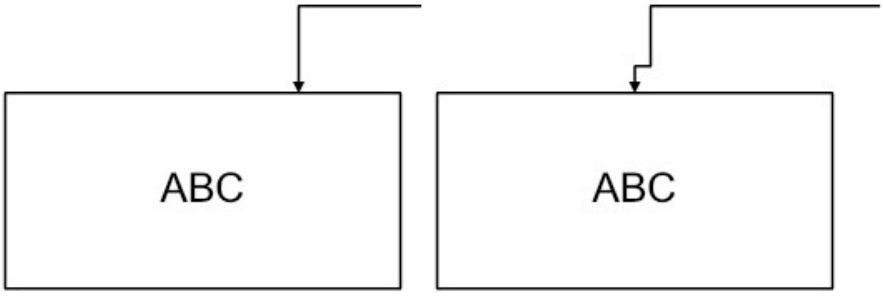
Not Connected

Connected

- Sometimes blue dots don't mean the line is connected. To be completely sure, select multiple shapes and arrange or move them. If any lines move or flip directions, you need to reconnect them — even if the dots appear blue.
  This will also show you if an arrow is connected to the wrong place on a shape, like the middle or outside edge.
- Lines can also appear to be connected but visually not meet the shape. You will need to replace these lines with new ones.



- Often, customer documents will have arrows that do not meet shapes at locations where we can connect them. Check with your customer to see if you can move this point to where it can be connected to the shape.



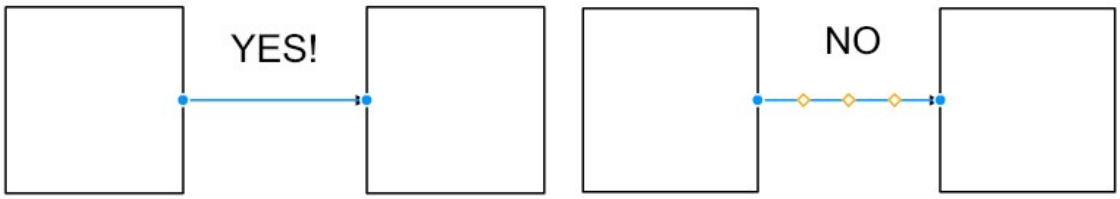
Shapes and tables

- Pay special attention to imported shapes. Sometimes these shapes will not match your customer's original documents, and you may have to create some from scratch.
- Most shapes can be found in the **Shape**> **Basic** or **Flowchart** menus. If your customer uses a shape that is not in Wdesk, check with them what shape you should use.

Tip: When shapes or tables need to be added or replaced, we recommend that you use copy/paste to maintain consistent sizing when possible.

Elbow connectors and straight lines

- After they are imported, some lines may appear to be straight lines but are actually now elbow connectors. These should be replaced with straight lines.

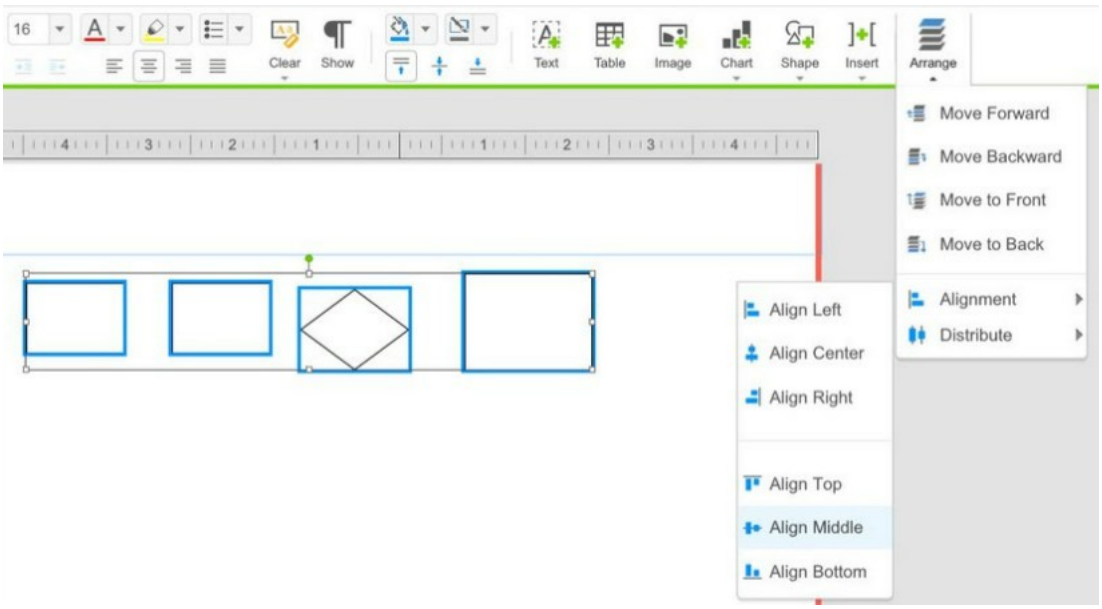


Shape alignment

- Whenever multiple shapes are in a row or column, use the **Alignment** options under **Edit**→ **Arrange**. (**Align Middle** and **Align Center** are most common options.)
- Align *every* applicable group of shapes as part of your initial formatting step, not just the shapes that look off. Doing only the obviously misaligned shapes often results in a longer review process to fix more subtle incorrect alignments.
- Wdesk will always align shapes to whichever shape is the furthest in the direction is selected. For example, if you select "Align Left," the shapes will all be aligned to whatever shape is leftmost.

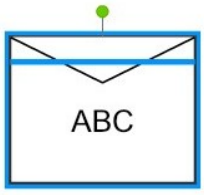
  You can use this to your advantage. If you need several shapes aligned to the left, and you have one positioned exactly where you want it, move all the other shapes to be to the right of that shape. The shape on the left will not move at all, but the other shapes will move left to meet it. This way, you never have to guess where your shapes will end up.

  Tip: You can use this with any directional alignment.



Text within shapes

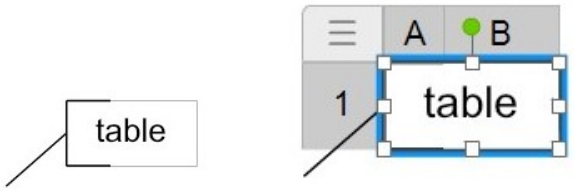
- While it is desirable to keep text within the shape as much as possible, sometimes this makes the shape much too large to fit properly within the slide. If this happens, discuss this with your customer. As part of this, verify whether all similar shapes need to be replaced for consistency.



- Make sure that the text is contained within the shape object, and not in a text box on top of it. However, if the shape is rotated you may need to use a text box. In these cases, keep the text box aligned with the shape. Copy and paste or move both together for efficiency when reuse is needed.
- Make sure you know what font, size, color, etc. you need to be using, and keep it consistent throughout the flowcharts.
- Check with your customer whether lists in shapes and tables need to be actual lists or you able to leave them as-is.

Dialog boxes

Boxes that look like the following image on the left can be created using a merged two-celled table, as shown on the right.

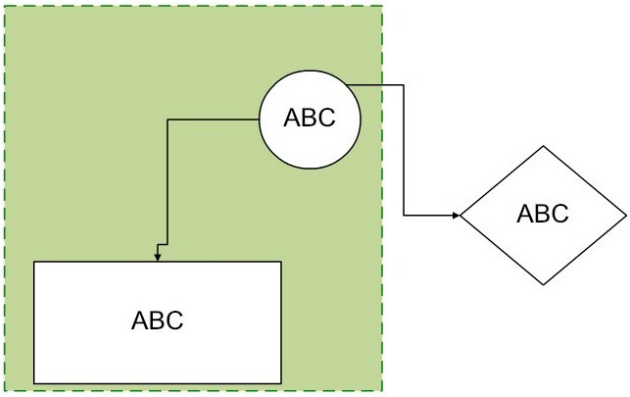


Tips

- Make sure you apply borders before merging the cells; otherwise, you will not be able to apply them to each cell individually. Copy and paste as needed.
- If the border is around the bottom, you may have difficulty getting the borders on the left and right to show once you merge the cells.

Process diagrams

- Sometimes you will see colored boxes behind the shapes in a flowchart. It is easiest to add these last and send them to the back. This allows you to retain the ability to drag and select shapes until this point.



- Sometimes lines in customer documents will include a curve when crossing other lines. These may import as elbow connectors with many extra bends or odd angles. It is best to replace these.

Linking the database to flowcharts

Linking ties the database data to the narrative and flowchart documents, enabling transparent updates to these files, as changing the source data in the database automatically updates it in all linked locations.

Prepare for linking

As you format the document, be on the lookout for things that could impact linking later on. For example, a control ID and description may be in a single cell. We recommend

splitting out the ID and description into their own cells. If the customer is very adamant about keeping the control ID and description in a single cell, you can use sub-cell linking. It is always best to make any accommodations during the formatting step so that it is not necessary to reformat during the linking step!

Best Practice: Make your changes during the formatting step so that it is not necessary to reformat during the linking step.

Linking to a flowchart

To link your SOX database to your flowcharts:

1. Select the **Data** tab.
2. Locate the cell with the data that you want to link to the flowchart (for example, the control ID and control summary).
3. Select the cell and use **Ctrl+C** to copy it.

   Caution: Double-clicking within the cell to highlight the text and then copying does not create a source link.

   If the copy is successful, a green banner is displayed.
4. Paste what you have copied into the flowchart using **Ctrl+V**.

   Note: You must select all the content you need to be in the link.

Adding additional flowcharts

To add a flowchart:

1. Locate an existing flowchart the is close to what you want to create.
2. Copy it.
3. Modify the flowchart to meet the new requirements.

Understanding narratives

Overview

Narratives are Wdesk documents used for SOX reporting. These are not constrained to any specific formatting guidelines and can look different for different customers. Sometimes your customer will have multiple formats in their narratives. This means that a lot of the formatting decisions in a narrative setup are up to your customer's discretion.

For general information on working on Wdesk documents, see Documents in the Workiva Customer Success Center.

IMPORTANT: Narrative setup, formatting, and linking must all take place in the Production workspace.

Narrative setup questions

This section presents narrative setup questions you should have your customer answer.

Importing files

- In what format are your customer's narrative files?
- Is each narrative to be a separate document or part of a larger document? If the latter, you will still need to import each file.

Constructing the outline

- How does your customer want to navigate the narrative?
- What level(s) of headings need to be included in the Table of Contents?

Consistency

- Should the documents all be standardized for consistency, or should they match the original files exactly?
- What is the correct text to be put in the headers and footers?

Style values

What are the desired values for the output page and paragraph layout? Items to consider are:

- List indents
- Margins (Top, Bottom, Left, Right, and are they mirrored?)
- Header font, size(s), and spacing (leading)
- Body font, size, and leading
- Paragraph spacing vs. line breaks
- Table column widths
- Hex codes for customer-specific colors
- Header/footer font and size
- Color assignments

The Document style table provides a place for you to record these values. You can use the document styles to ensure consistency for paragraph formatting.

Images

- If images are being used, is there a specific naming convention that should be used?
- What type of image should you pick if you need to snip something? Alternatively, is it an option for your customer to provide high-quality images for items like logos?

Colors

- If there are specific colors, verify the hex code (example: #3366af) for those colors.

Formulas

- Do formulas need to be applied to tables?
- If so, which ones?

Symbols and Lists

- Does your customer use unsupported symbols in lists or tables?
  If your customer has lists or table that use symbols that Wdesk does not support, you will need to talk to them and resolve this. Refer to Lists for information on resolving this problem.

Narrative setup best practices

This section covers best practices for setup with narratives.

Order of work

- Do tasks that are likely to impact others (such as setting margins) first.

Images

- PNG files are generally preferred for higher quality, but some organizations insist on JPEG (.jpg) files.

Importing files

As Wdesk can only import docx files, narrative projects must use that format.

To import a .docx file:

1. Create a new document in Wdesk.
2. Select **File > Import > DOCX Beta**.
3. Locate and select the file you want to import and click **Open**.
4. Select whether to append the imported file to the existing document or create a new document.
5. Click **Import**.
   The file is then imported in the manner you selected.

   Note: Be aware that any images or "objects" (generally drawings or Visio objects that Wdesk treats as an image) in the file will cause your import to create a new project.

   At this point, you can confirm the project import or cancel if you do not want the project created (you will likely eventually need to delete it). Make sure that the images are housed in the correct project, if needed, before deleting the import project. You can achieve this by adding the document to the intended project.

Notes

- If you are working with many documents in a larger project, make sure you remember to organize your imported documents.
- You may be better off deleting any images or objects in the document before importing to avoid creating a new project.
  This is a good option if any of the following points are true:
  - There are not many images in the document, and it is easy to snip them.
  - You already have recurring images (like logos) housed in the correct project(s).
  - You find that the images do not import correctly (i.e. borders missing, zoomed differently, etc.).
    This can happen if someone makes edits to an image within the word document. Wdesk doesn't pull in those edits and instead brings in the raw image. If those edits are important, you will have to rework the image.
    If in doubt whether you should import the document as-is or remove images or objects, reach out to your Workiva Support Team for guidance.
- Discuss permission and access considerations with these different options with your customer. For example, if your customer has a large number of narratives with a large amount of users updating those narratives may prefer separate documents rather than permissioning out multiple different sections.

Section names

- Always create a proper name for a section. Never leave a section name blank or default.

Headers and footers

- It is not possible to auto size columns to fill up margins in the header/ footer space. The workaround is to build a similar table in the main space of the document, then take the column widths from that table.

Tip: It may be worth adding an extra cell to your headers/footers if you are having to copy and paste frequently for small changes. Just make sure that the extra cell is not changing the appearance, and keep it small so the main content has all the room it needs.

Notes

- You will probably have difficulty copying and pasting it into the header space if your table is a single cell, but you can still adjust the column width based on the reference table.
- If there are two or more distinct pieces of information on one line, make sure you create a table — do not use spaces or tab stops.

Page X of Y formatting

To create a "page x of y" footer:

1. Insert a section at the end of your document (or wherever the total page count should come from).
2. Name the section something like "Page Reference DO NOT DELETE" or similar that you keep consistent across the project.
3. Make sure that there is not a section break between this section and the section prior, so that the page number is accurate to the content.
4. You can then build your footer using the auto text features in Wdesk.

   Note: Sometimes you may have to put this kind of footer into a table for it to function correctly. If in a table, you can either add the reference through the menu shown above or by right-clicking on the cell and selecting "Insert Page Section Reference".

IMPORTANT: If you ever see the format of "Page x of y" and need to keep this format, do not manually enter a number for Y. Make sure you utilize the Section Page auto text feature.

Content breaks

In text

- Never have a single line by itself.
  - Use the "Keep with next" option in **Paragraph Properties** to connect a header and text, or an introductory sentence that is followed by a list, image, or table. You should also use this feature on the next-to-last items in a list.
    If each item is as long as a paragraph or similar, you may be able to keep the last items together. If it would look out of place separated, keep it together. If it is a larger paragraph, you can also use the "Keep lines together" option.
  - The "Keep lines together" option is useful if you find the last line or lines of a paragraph appearing on the following page. This feature is preferable to manual page breaks, as it allows the document to change and update more fluidly.
  - Depending on your document structure, another option to adjust content breaks is the "Insert page break before section" option.

  Note: Sometimes you won't see the "Keep with next" feature take effect immediately. The change should show when you refresh the page.

In tables

- Never have one row of a table by itself, unless that row contains a lot of content and doesn't appear visually out of place.
- Keep header row(s) with the following row by selecting the **Table Properties** tab and then selecting the number of rows to be considered **Header Rows** under Header.

Tip: For this feature to take effect, you may have to change the table breaking behavior.

Lists

- Always make sure that lists are set up as actual lists in Wdesk.
  Sometimes they import well, and sometimes they don't. If they seem to be importing well in your document, you still need to check every one to confirm that it is a list — it is not uncommon for just one in a group of 10 points to be a symbol. You will also want to keep an eye on the indents and fix any that do not fit the standards established for the project.
- Bullets and text should be consistent in font and size. This may mean that a circle or square appears smaller in Wdesk than in your customer's original document. Unless you are told otherwise, that is fine.
- If your customer uses symbols or fonts that Wdesk does not support in the list feature, talk to your customer. The following are the most common solutions to this issue:
  - Determine and use a Wdesk-supported symbol in the list.
    Confirm with your customer if using this symbol should be done as a one-to-one swap or if all lists will be standardized to a specific symbol.
  - Maintain the symbol originally used by your customer.
    You will need to build the lists using tab stops and indents.

  Note: For each list item the symbol and tab stop will need to be copied and pasted, and the indent applied.

Linking the database to narratives

Linking ties the database data to the narrative and flowchart documents, enabling transparent updates to these files, as changing the source data in the database automatically updates it in all linked locations. Linking can only be done from the database to the narrative; it is not possible to make a link in the opposite direction.

To link your SOX database to your narratives:

1. Select the **Data** tab.
2. Locate the cell with the data that you want to link to the narrative (for example, the control ID and control summary). You will know that you have correctly selected a cell when the cell border turns blue.
3. Select the cell and use **Ctrl+C** to copy it.

   Note: Double-clicking within the cell to highlight the text and then copying does not create a source link.

   If the copy is successful, a green banner is displayed.
4. Paste what you have copied into the narrative using Ctrl+V.

   Note: You must select all the content you need in the link, unless you are inserting new text as an improvement.
5. You will now see a blue triangle on that property in the database and a green underlined word in the narrative.

Prepare for linking

As you format the document, be on the lookout for things that could impact linking later on. For example, a control ID and description may be in a single cell. We recommend splitting out the ID and description into their own cells. If the customer is very adamant about keeping the control ID and description in a single cell, you can use sub-cell linking. It is always best to make any accommodations during the formatting step so that it is not necessary to reformat during the linking step! Talk to your customer about any adjustments you think could be helpful. Refer to Linking the database to narratives for additional information.

Narrative linking questions

This section covers questions you should ask your customer related to narrative linking.

Description discrepancies

- What should you do if the descriptions don't match?
- What should be done if the description is only slightly off rather than completely different?

ID matches

- Should the IDs match exactly?
- If the original IDs only have numbers and not prefixes, is there a way to know how content should be linked from the database? In this case, check with your customer, as perhaps there is a report that you can reference.

Best Practices for narrative linking

This section covers best practices for linking with narratives.

Navigating the database

- To get the data you need to link, click **Data** in the left navigation area, This lets you navigate to your data (for example, Control or Risk). If you do not see the **Data** icon, reach out to your Workiva Support Team for assistance.

  For example, once you are viewing the Control data, you can click on any Control to bring up the details. From there, you can search for Control you need by clicking the dropdown at the top of the page and entering the ID you are looking for.

  Note: Sometimes, the information in one field (for example, "Control Summary") will appear to match that of a different field (for example, "Control Description"). Make sure you are still linking from the correct field so that updates flow through correctly.

- Selecting an element from the large data set will always open a new tab within the database.

Tip: If you are having to go back and forth between multiple data sets (for example, risks and controls), you can keep a tab open for each element rather than navigating to the large data set.

Description discrepancies

If descriptions don't match, get in touch with your customer to discuss the problem. You will most likely be told to do one of the following:

- Link over it because the database is accurate.
- Leave a comment so your customer can review it.
- Link AND leave a comment.

  Discuss these solution options with your customer and Workiva Support Team to determine what should be done if the description is only slightly off rather than completely different.

ID matching

Generally, you will be linking Control and Risk IDs and descriptions from the database unless you are told otherwise.

In general IDs should match exactly. You can use prefixes to help make them unique. If the original narrative only has a number and not a prefix check with your customer to see if there is a way to know how it should be linked from the database. There may be a report that you can reference.

Process and format

If content did not change when it was put into the database, you should be able to search for the ID and then link over the existing information.

IMPORTANT: Make sure you are not changing formatting as you do this. If formatting does change while linking, make sure you reformat it back.

Tip: Wdesk formats new links based on the preceding character and not the replaced content. If you are having difficulty reformatting a link (which is common), try constructing a link using all but the first character of the original content. This way, the new link will be created with the existing format. Just remember to go back and remove that first character afterward!

Note: It is not possible to apply formatting within a link. This means that if only the first half of the original description is bold, you will either have to make the entire link bold or plain. Check with your customer to learn how they want this handled.

Updating narratives

IMPORTANT: After a narrative has been constructed, any linked data updates must be done in the database, not in the narrative.

Importing files

You may be better off deleting any images or objects in the document before importing to avoid creating a new project. This may be a good option if any of the following are true:

- There are not many images in the document, and it would be easy to reinsert them.
- You already have recurring images (like logos) housed in the correct project(s).
- You find that the images do not import correctly (i.e. borders missing, zoomed differently, etc.).

This can happen if your customer makes edits to an image (for example, resizing) in the Microsoft Word document. Wdesk does not pull in those image edits; it brings in the raw image. If those edits are important, you or your customer will have to rework the image.

If in doubt whether you should import the document as-is or remove images and/or objects, ask your customer.

Creating a Table of Contents

Creating a Table of Contents (TOC) requires a document with multiple sections. For more information on creating documents, see Document Creation in the Workiva Customer Success Center.

Note: In most cases you will copy and paste the table of contents from another document, or import the document entirely into Wdesk. Alternately, you can enter text directly into a new section by inserting a table.

To create a Table of Contents:

1. On the **Outline Panel**, select the title of the section below where the new section will be inserted.
2. Click the "Add Section Before" icon.
3. Enter "Table of Contents" as the title and label for the new section.
4. Format the title as needed.
5. If your customer has provided a table listing the section heads, insert that, and go to step 5. If they have not, use the following steps to construct the TOC table:
    a. Insert a table.
    b. Remove all unneeded columns.
    This will leave you with either two or three columns.
    c. Expand the center (or left, if there are only two) column as wide as possible. You will resize the columns again after you have populated the table.

d. If the TOC is to have more than one level, use the styles feature to create a style for each level of heading (TOC1, TOC2, TOC3).

TIP: Workiva strongly recommends to not inude more than 3 levels in the TOC, even if there are more levels in the document.

e. Determine with your customer if the text of the heading needs to be a link, or if only the page number needs to be a link.

If only the page number needs to be a link:

i. Walk through the document, and make every heading that is to be an entry in the TOC a Wdesk Source link.

ii. Copy each heading sequentially into the table. If there are division heads ("Section I", "Section II", etc.) give them their own row and paste them in the right-most cell.
You now have a list of the sections in the document.
If a heading or section title changes, change it in the source link properties and republish.

iii. Apply the TOC styles as appropriate.

iv. Go to step 6.

If the text of the heading needs to be a link:

i. Walk through the document, and copy each heading sequentially into the table of contents.

If there are division heads ("Section I", "Section II", etc.), give them their own line and paste them in the right-most cell. You now have a list of the sections in the document.

ii. In the TOC, select the first cell with a section title and then double-click and select all the text in the cell.

iii. Right-click and select **Insert Hyperlink**.

iv. In the Insert Hyperlink dialog box,

a. Select **Section in this document**.

b. Select the matching section from the list.

c. Click **Create**.

v. Repeat step iv for every entry in the TOC.
Be aware that if a section head changes you will need to edit both the section head and the entry in the TOC.
For more information on editing hyperlinks, see Hyperlinks in Documents in the Workiva Customer Success Center.

vi. Apply the TOC styles as appropriate.

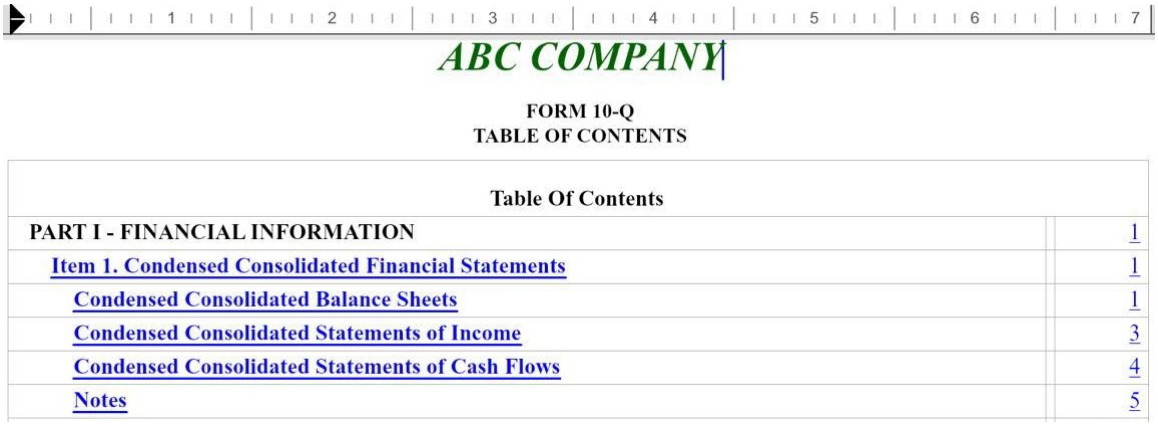
vii. Go to step 6.

6. Click in the right-most cell in the first row of the table.
7. On the **Edit** tab, click **Insert**.
8. Select **Auto Text**> **Section Page number**.

9. In the dialog box, choose the appropriate section.
10. Click **Insert**.

    The page number will appear in Wdesk as a hyperlinked number.
11. Repeat step 9 for every entry in the TOC.
12. Apply the TOC styles as appropriate. You can also create a style for the page numbers and apply that.
13. Use the automatic column width sizing feature to resize the table columns. Resize any rows that need resizing.

    The completed Table of Contents will now resemble this example:



ABC COMPANY

FORM 10-Q
TABLE OF CONTENTS

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Adding leader dots

If your customer wants leader dots (between the title and the page number), this can be done.

To add leader dots to an existing Table of Contents:

1. Click on the table to access the row and column indicators.
2. Right-click on the column A header to open the **Format Cells** dialog box.
3. Select the **Borders & Fills** tab.
4. The Leader Dots style options are in the lower right corner.
5. Select either tightly placed dots or more widely spaced dots.
6. Click **OK** to apply the changes.

   For more an illustration of this procedure, see the Leader Dots in Tables video in the Workiva Customer Success Center.

Note: If the automatically-generated page numbers are not matching the numbers you expect, see Table of contents showing incorrect page numbers in the Workiva Customer Success Center.

Best Practices for tables vs spaces and tab stops

- Reuse tables when possible to maintain consistency, unless directed otherwise. Sometimes, copying and pasting a table will not maintain exact column widths, so you will need to check these.
- If there is text that looks like it should be a table but was imported as regular text, you should rebuild it as a table.
- Any time you have two distinct pieces of information on one line, make it a table rather than trying to use tab stops or spaces. Tab stops and spaces are not sustainable when information changes and may be difficult for your customer to maintain. This also applies to headers and footers.

Phase 3: Project Review and Handoff

Project Review

This chapter covers the reviews needed before you hand off the project.

Why do an account review?

Data and accounts should be reviewed before being handed over to your customer to ensure that all data was imported correctly and all areas have been addressed to meet your customer's needs and expectations.

There are three primary reasons for doing an account review:

- To ensure the accuracy and completeness of the account and data structures. You want to be sure that you are capturing everything that was added to and removed from the model.
- To have a second set of eyes on a data-heavy task.
- To provide your customer with an implementation of Wdesk that will be most useful to them.

In reviewing the account, look at the following areas:

- **Initial Data** — Did all of the source data commit appropriately such as the number of unique records, the correct properties have data, and relationships between data types exist and are accurate?
- **Subsequent Data** — Are you certain that no information will be duplicated upon import, and no data issues will be caused by the new data?

- **Overall Account** — Are all display properties correctly set, needed form definitions modified or created, and initial reports created and correct?
- **Reports** — Do the reports provide your customer with what they need and are they efficient (choose the most direct path through traversals)? Have filters been added where necessary? Are the report headers clear of typos or incorrect spelling/ usages?
- **Dashboards** — Do all the dashboards provide only the information that your customer wants to see?
- **Test sheets** — Do these correctly encompass all your customer's data from the templates?

Reviewing record views

A record view is a way to see the data in an account; you can modify the record views using the Forms Definition Experience. Form definitions use the model to define properties and relationships that should be shown in a record view. The Form Definition Experience is accessed through the Database Toolbox. You should have a form definition for every datatype, and the datatype should show all relevant information.

Make sure that the record view includes any added datatype information, but only includes the information that your customer needs. This could mean removing properties and relationship from the form definition. An example of an area that might require modification is a table in a form definition created by a textual query.

Note: Any enum type datatype should be made "read only" to protect your customer from making value updates instead of relationship updates, as changing an enum type changes it globally. Any relationships should be removed for performance reasons. Make sure to add these for any enum model additions.

Refer to Working with form definitions to see various ways record views can be customized with sections and breaks.

Form definition notes

- All the standard form definitions are included in the shell account import.
- Where reification exists, on the Group table are there additional columns?

  Best Practice: Remove any outputs from the groupTable query that are not used by the customer.
- Form definitions are found in test sheets and individual records.

  Best Practice: To make sure that your queries are correctly structured, use Textual Query to create/test queries, then copy and paste the valid query into the "Add Filter Query" field in the form definition.

  IMPORTANT: Make sure to add any model additions to the relevant form definition.

Reviewing data

When you review your customer data, you need to confirm the following items have been addressed:

- Have all needed model edits been made?
- Have all needed form definitions been updated?
- Have all the needed model additions been added to form definitions?
- Does the Person record show all people or are there some entries that need to be fixed?
- For the records and record views (especially those that are customer-facing):
  - Are they unique (not duplicated)?
  - Do they show the expected properties and relationships?
  - Do they show the correct information?

Display property issues

The model in the shell account uses the first required non-numeric property as the display property. If there is no such property set, a GUID (a unique combination of numbers and letters) is automatically created and used. To resolve this error, you need to correct the property, by either specifying the correct display property in the model, or by changing the GUID to a proper property name. The GUID can be seen by looking at all data types and the first column in the data table view. If the first column is **N/A**, adjustments need to be made in the model and form definitions.

IMPORTANT: Although you may need to change the order of properties in the model, do not **remove anything from the model.**

Note: This issue is also true for group tables, as sometimes the display property does not contain any data. You must provide the correct information for the display property.
For example, Risk ID is the Risk display value. If no risk IDs are present, the mitigation table will show blank rows until the display value is updated. This can be done in the form definition.

Reviewing testing form definitions

When you review the testing forms, you should look at what your customer's prior test forms looked like and ensure they match. Questions to consider include:

- Do all the test sheet form definitions match those in the testing plan?
- Do test phases have different information that's accurately shown?
- Does the overview section contain everything needed?
- Do the walkthroughs contain all the necessary pieces?
- Are remediation sections set up, even though they may not yet be added?

Refer to Testing form definitions for more information.

Reviewing relationships

Reviewing relationships can most easily be done in Reports. The shell account includes multiple listing-type reports which show many of the configurable enum relationships, however, it does not show hierarchies. Creating hierarchies helps you verify that data is not missing or incorrect, and assists your customer's reporting.

For example, if too many controls are showing up in a particular process, the report could be written incorrectly or the relationships could be incorrect. If a process is supposed to contain a certain number of controls and there are not enough, some factor might be overriding the relationships.

Reviewing reports

The shell account includes a number of reports; most of these are listing-type reports, missing relationship reports and admin reports. *The shell account does not provide any sort of hierarchy or major relationships as these can be vastly different between companies.* You will need to create these based on your customer's requirements.

It is important to review these reports to ensure that the following are true:

- All enum types your customer uses are included (including any model additions).
- Any data your customer does not want to see is removed.
- Check that display values align with your customer's data set and dropdowns do not show GUIDs.
- Additional reports are created for reporting purposes, especially the following reports:

  RCM — hierarchical structure showing risk and control mitigation.

  Your customer may require certain filters be applied at the query level by process (this can also be accomplished with report layouts).

  Stakeholder Centric Reports — user-centric reports for Process, Risk and Control Stakeholders.
  The "My Controls" report is based off of Control Stakeholders.

  IPE Report — IPE information for controls.

  Financial Statement Report — controls listed by financial statements.

Reviewing dashboards

The shell account includes a number of dashboards; these are quick snapshots of what is happening with the data. The dashboards show an overall account picture; these can be expanded on to include filters to show a specific snapshot of a process or location.

Review the existing dashboards and make sure they only include the charts and tables that your customer wants to see in their account. This could mean modifying a dashboard

by deleting some charts or tables, creating new ones, and possibly creating completely new dashboards.

Shell account dashboards provides a detailed list of the default dashboards included in the shell account, and describes recommended additions to dashboard charts and tables, as well as suggestions for a tester dashboard. Refer to Working with dashboards for instructions on creating and modifying dashboards.

Reviewing Admin reports

There are multiple Admin and Permission reports included in the shell account. There are three Advanced Permission reports to which you should pay additional attention.

- **Advanced Permissions - Data Listings** — This permits you to grant non-admins view access to all enum records in case the option is not included in a report they have access to. For this report, make sure that all datatypes are included in the report.
- **Advanced Permissions - Reports** — This permits you to apply viewer permission to reports, editing rules still need to be applied if users should be able to edit data.
- **Advanced Permissions - by User** — This permits you to apply viewer permission on a user-by-user basis.

Once you have completed your review (all data, reports, dashboards, etc.), email your Workiva contact asking for an external confirmation review.

Account review checklist

This checklist lists the standard material covered in an account review to help improve your customer's overall success when accessing the database. Items covered include: YAML, Data, Enumerations, Display Names, Form Definitions, Query Reports, Testing, Dashboards, and Permissions.

Status	Task
Check YAML	
	Verify correct YAML is used within the account.
	Update computed properties for data types that won't be using all of the "compose" data types.
Data	
	Review data type values to confirm counts are equal to toolbox counts or to gain an understanding of differences. Examples: Control Assessment Values, Control Scoping Values.
	Review data types to ensure appropriate data is being shown.
	Confirm that the current audit program is marked as Active (if applicable).
Enumerations	
	Confirm that remaining standard enumerations are brought in for customer to select after go-live. Examples: COSO, Issue_Severity, and Issue_Status.
	Review enumerations lists are appropriate and do not have duplicate options (i.e. Annual vs Annually in Frequency).
Verify Display Names	
	Verify the appropriate display names are set by looking at the different data types in data. If any of the data types have "N/A" as the first property, the display name needs to be updated.
Verify Form Definitions	
	Review each visible data type form for unnecessary/unused relationships that can be removed (that is, on the Control form, Process, Risk, etc.).
	Confirm enumerated model adds aren't showing outgoing/incoming relationships and are set to alwaysReadOnly: true.
	Review groupTables to ensure unused relationships aren't present.
Review Query Reports	
	Verify that the RCM was built using best practices.
	Review '_Admin Only_ Advanced Permissions - Data Listing' to confirm model adds. Add "FocusType_Data_TypeProps_Only" for each custom enumeration.
	Add filterQuery to hierarchical data types.
Testing	
	Ensure tests and phases are created and mapped to an Audit Program and Audit Program Type.
	Review and compare the form layout to that in your testing discovery notes.

Dashboards	
	Check for error messages that say "Cannot be displayed." and remove those items from the dashboard. Also remove the chart created within the source report that feeds the dashboard.
Permissions	
	In your customer's production account, confirm that the "All Users" group defaults permit view access to hidden data types. **IMPORTANT:** This is required because this data will not come over on an account export/ import.

SOX field test checklist

Upon delivery of the build to the customer the below field test checklist can be used with the customer to confirm all design requirements have been met. Please add or remove items to modify for your SOX environment.

Status	To Check
Data Tab	
	The information listed on the following record views is accurate and complete: • Control Record view • Process Record view • Risk Record view • Issues Record view** • Action Plans Record view** • Other customer-specific data types (Control Objective, System, Document, etc.)** **Based on contract
	Items to be shown or hidden for each record view are correct
	Dropdowns are complete and accurate
Reports Tab	
	All reports are correct, including: • Columns are correctly displayed and ordered • Information is complete and populating **Tip:** Use data layout options for controls by owner, etc.
	All needed reports are available
	All reports provide the information needed for upper management
Testing Tab	
	Test forms have been created for the correct controls
	Test phases have been created within each test form
	Test form captures all information required for testing
	Dropdowns are accurate
Dashboards	
	Available dashboards are correct and complete
	Dashboards provide the needed charts and tables

Status	To Check
Review Process Documentation	
	All narratives and flowcharts have been built and formatted
	All links have been correctly applied
Permissions	
	Admin panel • All users have been added to Wdesk • All users have been assigned to appropriate groups
	Database user roles have been created
	Person drop down lists all users
	Testing forms • Test form folders have been created • Permissions have been applied to test form folders
	Reports • View access has been granted for appropriate groups • Editing rules have been created and applied to appropriate groups
	Dashboards • View access has been granted for appropriate groups • Editing rules have been created and applied to appropriate groups
PBC	
	Requests created
	All users who need access have been granted permission (refer to Permissions for more information)
Certification **IMPORTANT:** Customer is responsible for all Certification builds unless specified in contract.	
	Needed Processes and letters have been created
	Hyperlinks to correct report(s) have been applied to the letters
	Letters have been assigned to correct individuals
	Process, letters, and hyperlinks have been fully tested

Phase 4 : Go Live

Congratulations!

You have successfully set up a customer to use the Wdesk Database for SOX. At this time the Production Account should be loaded with the Internal Only account database data and client end users should all be added to the production Workspace, if they haven't already.

Handing over the project

This chapter covers what is required for field testing and the project handover

Overview

Note: The process and elements described here are based on current Workiva practice. As a partner, you may develop your own practice and patterns that differ from this.

If you have a Workiva Onboarding Project Manager (OPMs are assigned to accounts based on how comfortable you feel with the process and your customer's needs) there are multiple scenarios. This will also only be relevant for the accounts that have a Customer Success Manager, as not all of them will (sometimes you will be acting as the CSM for ongoing support).

Field testing

Once the database is delivered, your customer should go through the database to review items such as forms, reports, dashboards, testing, and PBC requests. As soon as the documents are completely set up and linked, they should also review those documents for proper formatting and linking. Please refer to the SOX field test checklist.

Your customer should be providing feedback as they review the project material. You can then update the database and documents based on this feedback. They also should review the updates after they have been made. Once your customer has signed off on the implementation, you may continue the project handoff.

Note: It is possible that multiple review rounds may be needed before your customer signs off on the implementation.

Tip: Using a spreadsheet to track feedback from the customer during field testing will help ensure that all feedback is received and addressed. A spreadsheet provides all parties access to see the feedback and progress any time as well as keeps all feedback and responses in one place.

Project handover

Once the field testing is complete, notify your customer that the implementation is ready for them to use. As the project implementer, you will now roll off of the implementation project. If your customer has a Workiva Customer Success Manager (CSM), review the final project configuration with them before you roll off of the project. The CSM will then take over as the end user's main point of contact for support items.

If the end user is another team member in your organization, you will most likely continue with the project in a support role. You will ensure that all end users are trained, help answer their questions, and make any modifications they may find after the project has been closed. If you need help with any of these items, please reach out to your Workiva Support Team.

There are two general resolutions to an onboarding project.

Resolution	Actions
Project is all complete	You and the OPM will roll off the project at the same time. The OPM/CSM and you will meet to discuss the timing of this happening and what each team believes might still be outstanding (if anything). You and the OPM will get signoff from your customer to close the project. At this point the account is transitioned to the CSM for ongoing support.
Main project is complete, but Workiva is doing a Risk Assessment or Process Audit	You, the OPM and CSM will have a call to ensure the Controls Management (CM) project is complete and determine when they will discuss the status with your customer. From there, you and the OPM will discuss closing out the CM project with your customer. The OPM will work to get an SA from Workiva assigned to complete any additional projects that were on the contract.

Post implementation

This section covers what may be needed after the database has been populated and deployed. Specifically adding supplemental mappings and connecting a sheet to a data source.

Adding supplemental mappings

Overview

Sometimes you need to add supplemental mappings for SOX. This chapter covers the following aspects of this task.

- Reasons for adding mappings
- How to add mappings
- Nuances when adding mappings
- Best Practices for supplemental mappings

Reasons for adding mapping projects

Reasons for adding additional mapping projects to an account include:

- A map for a new Audit Program year or Fiscal Period.
- Performing a mass update.
  For example, if you decided to start all your Test of Controls as Effective, but then want to change it to Testing Not Started for all your controls.
- If additional or subsequent data is provided by your customer.
  Examples include:
  - ITGC controls
  - Adding a BU or geographic location
  - Issues/ Deficiency Listing
  - IPE/ Document Listing
  - Systems/ Applications Listing
  - Subsequent period Certification or Assessment imports

Note: Although we recommend asking for all data at the start of a project, it is common to have to make additional imports.

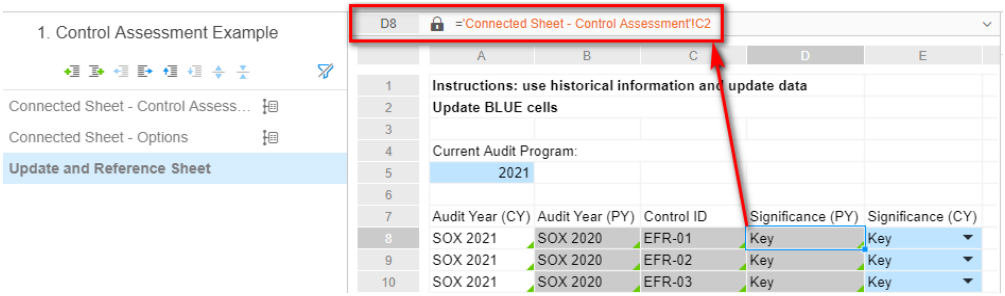
Adding mappings

To add a map to an existing account:

1. Open the account. (Internal Only if you are still creating a new account. Production if the data has already been moved there.)
2. Create a new report that shows the data that is to be added or updated.

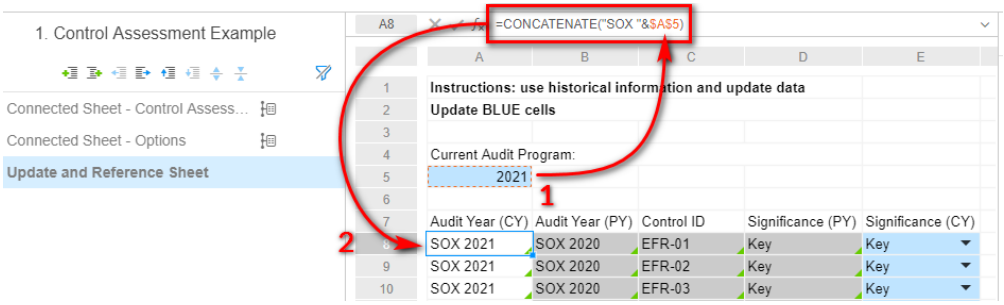
   Best Practice: If you are doing both of these tasks in the same project, we recommend that you create separate report views for each task, and do the updating first. You may also find that filters are useful in these reports (for example, so you can filter by audit year).
3. Create a second new report that shows the options (enums).
4. Create a new spreadsheet.
5. Connect the database data to the spreadsheet as a connected sheet.
   In that spreadsheet:
   a. Connect the data from the reports created in steps 2 and 3 as separate sections (sheets).
   b. Create a third section where you are updating the existing data or adding new data for the subsequent data commit.
   c. Pull the data from the sections containing the existing data to this new section.

      Note: You must use either references or matching formulas to validate your data. This is because you cannot validate against existing DB data in a mapping project. Using references or matching formulas helps make certain that there are no typos and you're not accidentally creating new records.



Best Practices for adding mappings

- Color the background of the reference cells to visually remind you that they are references.
- You can set the spreadsheet up to be reused in future years as follows:
  1. Create and populate a cell with the working year in the upper left corner of the spreadsheet area you are going to use. (#1 in the image below)
  2. In the first cell of the working area, create a concatenation formula that identifies the program using the date cell from step i.
     (#2 in the image below). In the example below, this is for a SOX Audit.

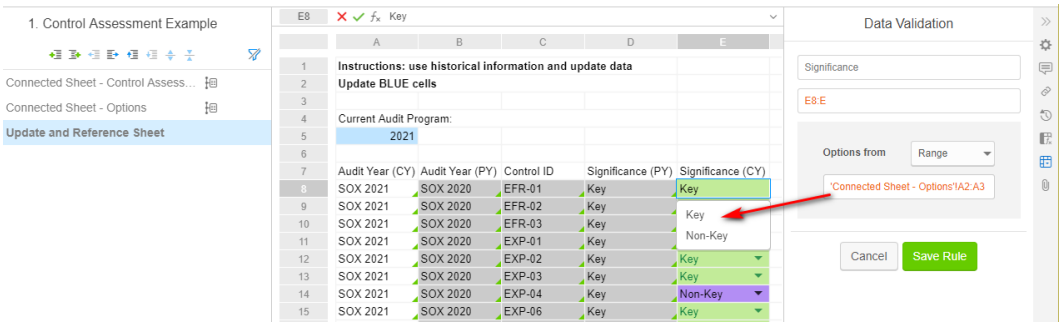


  3. Drag and fill horizontally to fill all the reference columns.
  4. Drag and fill the reference row down the page far enough to capture all the entries from the source sections.

     TIP: If your drag goes too far (showing "0" values), delete the spreadsheet rows containing these entries so that you have only the valid reference values.

     Note: This is not something that you will use for all supplemental mapping projects.
  5. Lock the data that is being referenced.
  6. Insert a column for new data.
  7. Use the dropdown values (from the enums) for your data validation.

     Tip: Use conditional color-coding for the enum options so you can easily distinguish them. In this example, Keys are green, and Non-Keys are purple.



  8. Create a new mapping project.
     Remember to enable `?debug` and go to the Database Toolbox.
  9. Add the spreadsheet from Step 4 as a data source to the mapping project.

10. Map the data and relationships.
    Make sure that any existing data is set to **Read**, any changed data is set to **Update**, and any new data is set to **Default**.

    Tip: Remember that commit actions are done on a per-property basis, so each map's column should have only one commit action.

11. Validate and commit the new or updated data.

IMPORTANT: If you do not commit the data right away, remember to check and update your date before making the commit.

You can reuse the spreadsheet and mapping project multiple times (for example, year over year, or quarter over quarter). You will have to update your filters and resource date fields to handle the new periods.

Nuances when adding mappings

- If you are rolling forward a project, the mapping document should be included in roll-forward and only the new data should be committed.

  Best Practice: Create a Milestone before creating a Roll-Forward.
- Validations do not carry across mappings; therefore there is a risk related to data inconsistencies across Maps. Examples of these include: duplicate data/ IDs, invalid single selects, etc.

  TIP: Use Read/ Update as much as possible.
- Use reports to validate data. Be sure that the data is current from the database before validating your maps.

Determining the account mappings should be added to

For simple data, mappings can be added directly to the Production account. However, if there is a lot of data the mapping it should be added to the Internal Only account and reviewed before it is moved to the Production account.

Best Practices for supplemental mappings

The following sections describe Best Practices and recommendations for making supplemental mappings after the project has moved to production.

Overall Best Practices

- For initial projects, do not split the mapping, even if your data is coming from multiple sources.
- Always keep previous mapping projects for future reference.
- Split mapping projects *only* for subsequent imports.
  This is because:
  - Validation is only applicable within an existing mapping project.
  - Old mapping projects may have outdated data, and because you commit a project as a unit, using an existing mapping project will override any data changed since the previous implementation.
- Always create a new mapping project.
  For each mapping project, create a new spreadsheet connected (linked) to an existing spreadsheet so that you do not modify any existing data or structures. This also allows you to do additional parsing on the mapping of the new spreadsheet.
- Keep Scope and Mapping projects small.
  If your customer comes back with significant size or arrangement changes, you must have a conversation with them about why the changes are being requested and what work will need to be done or redone.

Updating existing data

Create a new mapping project to update existing data.

- Adjust the commit action as needed.
  Default — Use for initial import.
  Read — Use when updating relationships between datatypes.
  Update — Use when updating records.
  Insert — Use if you are only adding new data.
- Multi-select relationships only add values, they do not replace values.
- Single-select relationships only replace values, they do not add values.

Adding data

Create a new mapping project to add data to an existing account.

- Create the reports
  - Make report of relevant data
  - Make a report of options (enums)
- Set up the spreadsheets
  - Connect the Reports using connected sheets
  - Use either reference formulas or matching formulas to validate data
  - Use the dropdown (enum) values to simplify the data validation
- Create a separate mapping project
- Add a spreadsheet as a data sources to mapping project.
  - Go through mapping (standard create new map procedure).
  - Adjust the commit action:

    Default — Do not use for data that should not be created.

    Read — Use when updating relationships between datatypes.

    Update — Do not use for data that should not be updated.

    Insert — Use for data that is being created.
- Validate and commit data.

Refer to Adding mappings for specific details on adding mapping to a project.

Import functionality

Action	Behavior
Default	Looks at the unique, and if it does not find a record with that unique, it adds a new instance. If it does find a record with that unique, then it updates the existing record with the new information.
Insert	Adds one instance of data (if data is parsed and duplicated on rows, this will cause an error. Either correct the error or change the action back to Default.).
Update	Uses the unique identifier to update properties or relationships; an error message appears if there are new instances.
Read	Reads existing data, and does not update or add any new data. This is most commonly used when new relationships should be created with existing data and will prevent duplicate data from being created. This is especially important with testing templates and any subsequent imports.

Connecting a sheet to a data source

Overview

Sometimes you need to add supplemental mappings for SOX. This chapter covers the following aspects of this task.

- Protecting formulas and data
- Setting up your connected sheet

Workiva spreadsheet connectors allows you to pull information directly from the Wdesk database and update a sheet directly from the data source with one click.

To access the Connectors feature, open the spreadsheet you want to connect to a data source, and click the **Data** tab.

Protecting formulas and data

IMPORTANT: Before you connect to a data source, lock the populated cells in your sheet to prevent formulas or data from being overwritten when importing from the data source.

If the locked cells are outside of the range of the data source the locked cells will not be overwritten, but if a locked cell is within the range of the data source, you will get an error and will be unable to connect the sheet.

To lock cells:

1. Open the sheet you want to connect to a data source
2. Select the cells you want to protect
3. Click **Lock** in the toolbar.

   To see which cells are locked, select the **View** tab and click **Overlay**.
   Locked cells are shaded gray, and unlocked cells are shaded blue. An indicator will also appear in the bottom left to inform you that an overlay is currently enabled.

Setting up your connected sheet

You can only connect a sheet in a spreadsheet to a single data source. However, a spreadsheet can contain many sheets, each connected to the same or different data sources.

IMPORTANT: Data from a connection must be changed at the source; it cannot be modified in the spreadsheet.

To connect sheets:

1. Select the sheet you want to connect to a data source from the list of sheets in the document outline.
2. Click **Connect** in the toolbar and select the data source you want to connect to. This opens the **Choose Wdesk Database Data Set** dialog.
3. Find and select the data set you want to connect and click **Next** to import it.

   IMPORTANT: If you have any locked cells, the corresponding data is not imported.

   Note: The amount of time it takes to import your data can vary based on the performance of the data source. You can continue to use Wdesk while your import is in progress.
4. After the import process is completed, icons appear next to each sheet that is connected with a data source. Once the sheet is connected to a data source, you can build views and reports, add cross-sheet formulas, and perform lookups.

   Best Practice: Do not create source links within the connected sheet

More about connected sheets

After you've connected a spreadsheet to a data source, you can use your connected sheet in various ways.

Updating your data

When there is new data, you will want to update the sheet to make sure you have the most current data from the data source.

To update your data:

1. Select the connected sheet you want to update from the spreadsheet outline.
2. Navigate to the **Data** tab in the toolbar and click **Update**.
   This updates only the sheet you selected. If you have multiple sheets and documents, you need to update each sheet individually.

A status message appears as a banner across the top of the Wdesk screen letting you know which data source and data set is serving as the source for the update

Another message appears in the lower-right corner when the update is complete.

Note: You cannot undo data updates or imports, but previous revisions are available in the History tab if you need to view an older version of your document.

Linking

Best Practice: Avoid directly linking from a connected sheet to other documents. Links are based on cell coordinates, and this means that changes to the structure of the data source may change which data occupies a specific coordinate. If that happens your link will be referencing an incorrect value.

Viewing connection Properties and History

In the right panel, you can use the **Connected Sheets** tab to see additional information about the sheet connection and the **History** tab to view revision history and authorship.

Disconnecting from a data source

You can disconnect a sheet from a data source any time.

To disconnect a sheet from a data source:

1. Right-click the connected icon for the sheet you want to disconnect
2. Click **Disconnect Data Set**.

Glossary and term reference

The following table provides definitions and context for many of the terms used by Workiva. They are grouped by context.

Term	Context	Definition
Account Export	Implementation	Export option that pulls down all of the information from the database, including, the model, data types, relationships, reports and dashboards.
Account Import	Implementation	Import option that uploads all of the information from a Wdesk Account Export, including, the model, data types, relationships, reports and dashboards.
Boolean	Property	The bit property type may be used to indicate a property takes on the values True and False. This will show up as a checkbox.
Computed Property	Property	Data type property derived from other data type properties. These can be properties on the same instance or properties on other data type instances that are connected through the graph.
Custom View	Reports	Tool for customizing reports. Located on the right-hand panel, it allows the user to change column and row orders, set hidden status for columns or rows, group data by differing criteria and implement calculations on the report. Also known as: tables or layouts.
Data Model	Implementation	Method of organizing and describing data. Workiva uses a set starting model for SOX implementations.
Data Record	Data Types	An individual value of a data type. This can be thought of as a data point underneath the higher level data type. Also known as: node, vertex, or instance.
Data Type	Data Types	Main level of data inside the database. A data type should represent a standalone category of information that can contain multiple values and attributes, and is not dependent on another piece of data to exist. Examples: Control, Risk, or Process.
Database	General	Data repository with a formal structure.
Date	Property	Property type used for date fields. Format is MM/DD/YYYY.
Display Name	Property	Determines how an individual instance will be displayed when shown in the data list view. This can be computed. The Display Name property is the first required string in the YAML model definition with the exceptions of number or integer properties.
Edge	Relationships	See *Relationship*.
Edge Label	Relationships	Describes the outbound direction of the relationship for the user display.
Edge Name	Relationships	Part of the relationship that the computer uses to traverse from one data type to another.

Term	Context	Definition
Enum	Relationships	A dropdown list with a pre-determined list of options, forcing the user to choose from only those values. This can be a single-select relationship (write a query with --edge for report to show dropdown). This can also be written into the model if a separate data type is not created. Also known as: enumerated list, enumeration.
Hierarchy	Relationships	By combining recursive relationships and relationships to data types of "Type", you can create a hierarchy within the same data type. Example: Sub-process and Process are the same type, but one is subordinate to the other.
Import Data (Strict Mode)	Implementation	Option for importing excel template data into the database. This option will not create any new properties, relationships or data types.
Inheritance	Relationships	Concept in Graph Theory that allows a data type to inherit property fields from another data type under certain conditions.
Instance	Data Types	See *Data Record*.
Integer	Property	Numeric property type that can only be a whole number (1).
Long Text or LongString	Property	This is the same as *String*, but is used for extended strings of text (such as descriptions) that may be a full sentence or paragraph in length. This is used for strings that have multiple lines.
Multi-Select	Relationships	Relationship type allowing users to select multiple items on a list. **Note:** Using this may reduce some of the benefits of the graph, if possible, use a single-select enum instead.
Node	Data Types	See *Data Record*.
Number	Property	Numeric property type that can have decimal (1.00) values.
Optional Branch	WARG (Queries)	These allow queries to return empty fields where the query would ordinarily not include them. A useful troubleshooting mechanism to use while creating queries.
Path	Relationships	See Traversal.
Primitive Property	Property	Data type property that is inherently part of that data type, and does not individually relate to any other data type. It is defined uniquely for each data instance. Typically this will be an open text field or date.
Property	Data Types	An attribute of a data type that is inherently part of that data type, and does not individually relate to any other data type. It is defined uniquely for each data instance. Property types can be Primitive or Computed.
Query Filter	WARG (Queries)	A predetermined filter built into the report query language that automatically limits the displayed report data according to the specified parameter(s). You can think of this as a back-end, server-side filter working behind the scenes as opposed to a client-side filter that a user would interact with.

Term	Context	Definition
Query Self-Reference	WARG (Queries)	A query concept where after a later traversal, the report is filtered by a traversal completed earlier in the query.
Recursive	Relationships	Data types with relationship to themselves; this is used for hierarchy and based on relationships.
Reification	Relationships	Qualifying relationships and/or grouping multiple pieces together. Example: The control mitigates the risk but under the qualification that the mitigation provides a specific control objective — the mitigation concept is not a *real* piece to the SOX environment but it creates a real group out of a control, risk, and objective.
Relationship	Relationships	Means by which two data types are connected. The connection is called an "edge" and both the direction and the name of the edge constitute the relationship. Also known as: edge, reverse edge.
Reverse Edge	Relationships	See *Relationship*.
Reverse Label	Relationships	Describes the inbound direction of the relationship for the user display.
Single-Select	Relationships	Relationship type allowing users to select only a single item from a list.
String or Short Text	Property	A property type indicating the property value is composed of text. Generally used for brief textual attributes, such as IDs or numerals. Usually these are open-text fields that can contain any UTF-16 character.
Structured Data	General	Data that has been given a structure through being put in a database.
System Data Type	Data Types	Selecting this Data Type option will cause the data type to not display for non-admin users. This can be set in the model. **Note:** You should never need to create an additional system data type.
Traversal	Relationships	A step taken from one item to another in a query report that determines what data types, relationships, and properties the report will include. Also known as: path.
Unstructured Data	General	Data not in a database, often a spreadsheet or a listing of data.
URL	Property	A property type of 'map' indicates a property that contains a URL link.
User-centric Query	WARG (Queries)	A query based on the user accessing it, where the user viewing the report is a variable in itself that can affect what information is included. This will cause the report to be unique to each individual viewer.
Vertex	Data Types	See *Data Record*.
WARG	WARG (Queries)	WARG is a sub-set of the Gremlin language used by Titan DB. It is a Graph Database Query Language.
YAML	Implementation	Markup language used to store the data model in an organized structure within the database. YAML = "Yet Another Markup Language".

Addendum
End User Guide

Working with organizations

This chapter covers the tasks related to working with Organizations. Sections include:

- Access to Organization Admin functions
- Organization roles
- Adding users
- Managing users and roles
- Exporting user details
- Viewing and exporting organization activities

Overview

An organization connects all workspaces at a company. Everyone belongs to the organization but may only be members of some workspaces. Within an organization, you can create workspaces for separate teams to collaborate on documents and processes.

At the organization level, **Organization Admins** can manage all users and workspaces in one central location. Organization admins can add and manage users and apply settings that are enforced across all workspaces.

Access to Organization Admin functions

IMPORTANT: You need to have either **Organization User Admin** or **Organization Security Admin** role permissions to access the organization settings.

To access the Organization Admin functions:

1. Click your name in the bottom left corner of the Workiva screen.
2. Select **Organization Admin** from the menu.
3. Depending on your browser settings, either a new browser window or tab will open with the **Organization Admin** page.

   Here are the available settings.

Setting	Description
Overview	This contains the name of your organization and a summary of licenses.
People	This lists all users in the organization and is where you can add, update, and remove users.
Security	This is where Organization Security Admins can manage authentication, access restrictions, and single sign-on settings.
Activities	This is where Admins can review all actions performed in your organization, from users logging in to administrators modifying settings.
Workspaces	This is where you can access all workspaces and perform the same actions as a Workspace Admin, such as adding members or setting a workspace solution.

To learn more about organization user and security admins, see Organization roles.

Organization roles

Organization Roles allow you to set access and manage what members can do at the organization level. By default, all users in an organization are an **Organization Member**, which allows them to be added to a workspace. Beyond this there are two types of admins: **Organization User Admins** and **Organization Security Admins**. To learn more about applying a role at the organization level, see Managing users and roles.

Note: Organization roles are separate from Workspace and Database roles.

Organization admin types

At the organization level, there are two types of admins — **Organization User Admins** and **Organization Security Admins**. They can manage all users and workspaces in one central location.

Organization User Admins

Users with this role can:

- Add users to the organization
- Assign organization roles
- Manage members of the organization and which workspaces they belong to
- See workspaces in the organization
- Set or remove workspace admins
- View organization activities

Organization Security Admins

Users with this role can:

- Manage sign-in and session options
- Manage password settings
- Set access restrictions for IP addresses or email domains
- Manage single sign-on settings, configure SAML and IdP settings
- View organization activities

Note: Roles at the organization level are different than Workspace roles or Database roles. To learn more about workspace roles, see Workspaces roles. To learn more about Database roles, see Understanding database roles.

Adding users

Organization Admins can add and manage users in an organization. When adding a new user, you can use an email address as the username or set a unique value. Usernames cannot include spaces or capital letters.

What you need:

- First and Last Name
- Email Address

Adding a user

To add a user to your organization:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Click **Invite**.
4. Enter the new user's information, then select options for any needed roles or licenses.
5. Click either **Save** to save an exit, or **Save and Add Another** to continue adding more users.

After you've added users, you can then add them to workspaces in your organization. To learn more, see Inviting members to a workspace.

Sending welcome emails

Welcome emails are sent to new users when they are invited to their first workspace. They contain sign-in details and a temporary password that expires after 5 days. After signing in for the first time, users are required to enter a new password.

If needed, you can resend a welcome email to provide a new temporary password.

To resend a welcome email:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Find the user you want to resend the welcome email update by either searching for their name or username or by scrolling
4. Mark the checkbox next to their name.
5. Click **Welcome** in the toolbar.
6. Click **Send Email** to finish.

Note: If you send a welcome email before a user is invited to a workspace, they won't be able to access anything until they are invited.

Managing users and roles

Organization User Admins can manage and update users as needed. In the People section, you can view all users and filter by license, role, or search for a specific user.

Changing a user role

To update a user's role:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Find the user you want to update by either searching for their name or username or by scrolling through the member list.
4. Click the edit icon or double-click the organization role.
5. Select a role and click the check icon or press enter.
6. Click **Apply Changes** to finish.

Tip: You can also change a user role by checking the box next to a user's name and then clicking **Edit Roles** in the toolbar.

Updating multiple users

When you have several users to update, you can assign or remove roles in bulk to save time. It's best to select users together that you want to have the same role.

To update multiple user roles at the same time:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Mark the checkbox next to the name of each member you want to update.
4. Click **Edit Roles**.
5. Mark (to apply a role) or clear (to remove a role) the checkboxes.
   A dash in a checkbox indicates that some of the selected members already have this role. Roles that are grayed out cannot be assigned.
6. Click **Apply**.
7. Click **Apply Changes** in the toolbar to finish.

Editing user details

To edit user details in your organization, such as email, name, or license:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Find the user you want to update by either searching for their name or username or by scrolling through the member list.

4. Click on the row to select the user.
5. Make any updates.
6. Click **Apply Changes** to finish.

Resetting user passwords

You can reset a user's password. When you reset a user's password, it disables their current password and they are sent an email with a reset link that expires in 5 hours.

To reset a user's password:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Find the user you want to update by either searching for their name or username or by scrolling through the member list.
4. Mark the checkbox next to their username.
5. Click **Reset Password** in the toolbar.
6. Click **Reset Password** in the dialog to confirm and finish.

Removing a user

You can remove users that no longer need to be in your organization.

IMPORTANT: Removing a user could impact document permissions, so you should review document permissions before you remove them.

To remove a user from your organization:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Find the user you want to update by either searching for their name or username or by scrolling through the member list.
4. Mark the checkbox next to their username.
5. Click **Remove** in the toolbar.
6. Click **Remove** in the dialog to confirm and finish.

Users and Support Users

When a user is a member of an Organization, they can be a "regular" user OR a "Support User". They cannot be both. This means that you can't add the "support user" role to a "regular" user.

To change a 'regular' user to a support user:

1. Remove that user from the organization (this also removes the user from all workspaces in that organization).
2. Select a workspace you want to add the user to.

3. In that workspace, select "Invite Support User". This action will add the user to the organization, to the workspace, and as a Support User for that workspace.
4. After you've added the user as a Support User to the organization and workspace, assign the user Organization Admin and Workspace Admin roles as needed.

Exporting user details

You can export a .csv file listing all active users in your organization. This is helpful when you need to review user details in bulk, such as roles, or get a file to use for SAML User Mapping. By default, exports include the following fields:

- Username
- Last Name
- First Name
- Email
- SAML ID
- Last Login
- Organization License
- Organization Roles
- Workspaces

If needed, you can choose to include additional details about workspaces roles for users. When you include workspace roles, you'll see a listing of roles along the top and which workspaces a user has that role for. For example, looking in the column for Workspace Admin you'll see all workspaces where that user has that role.

To learn more about what each workspace role can do, see Workspace roles.

Exporting user details

To export details for users in your organization:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Click Export.
4. Click **Export .csv**.
   You can also choose to include the workspace role fields if they are needed.
5. When your export is ready, click **Download**.

Viewing and exporting organization activities

Activities provide a list of actions performed in the organization. You can review actions performed in your organization, from users logging in to administrators modifying settings. Activities are arranged with the most recent actions at the top and the oldest at the bottom.

Note: You'll only see activities based on your role. For example, an organization user admin won't see activities related to security setting changes made by an organization security admin.

Viewing activities

When viewing activities, you can filter by date. Select both a start and end date to see activities for a specific date range.

To view activities for your organization:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Click **Activities**.
   By default, you'll see the first 100 activities and can scroll down to load more activities. Scroll to the right to see additional activity details, such as time and IP address.

Exporting activities

You can export activities to a .CSV file if you need to do additional filtering or share activity data.

To export organization activities:

1. Click your name in the bottom left, then select **Organization Admin**.
2. Click **People**.
3. Click **Activities**.
4. Click **Export**.
5. Enter both a **Start Date** and an **End Date**.
   If needed, you can set a username or activity filters to narrow your export.
6. Click **Export**.

   Note: The organization activities export only shows activity at the organization level. For workspace-related activities, refer to Viewing and exporting workspace activities.

Using workspaces

This chapter covers the tasks related to working with Workspaces. Sections include:

Overview

Workspaces let you create separate places in Wdesk for departments or teams to collaborate. They are how you organize teams and files into secure, controlled spaces. An example is SEC and SOX teams each having their own individual workspaces.

At the workspace level, Workspace Admins can:

- Manage workspace settings
- Invite members to a workspace
- Change role and permission assignments
- Assign workspace roles
- Manage members and roles
- Manage groups
- View activities in a workspace

Managing workspace settings

Only roles with Workspace Admin or Organization Admin permissions can update workspace settings, manage members, and manage groups as needed. From the workspace **General** settings tab, they can rename a workspace, change the workspace color, or set a workspace solution if one has not been set.

Renaming a workspace

To rename a workspace:

1. Click **Settings** to open Workspace Settings.
2. On the **General** tab, enter the new **Workspace Name**.
3. Click **Save Changes** and confirm you'd like to save your changes.

Changing the workspace color

To change the workspace color:

1. Click **Settings** to open Workspace Settings.
2. On the **General** tab, click the color picker and choose a color.
3. Click **Save Changes** and confirm you'd like to save your changes.

Setting the workspace solution

For additional functionality, you can set a solution for a workspace, if it is available for your organization. Once a workspace solution is set, it can't be changed. Typically, this is done when you create a workspace.

To set a workspace solution:

1. Click **Settings** to open Workspace Settings.
2. On the **General** tab, select the Solution.
3. Click **Save Changes** and confirm you'd like to save your changes.

Inviting members to a workspace

In addition to being users within the organization, before anyone can view or work on any files in a workspace they need to be invited to become a member of that workspace.

Workspace admins and organization admins can invite members to a workspace to collaborate on documents.

Any user in your organization can be invited to a workspace. If you can't find them, you may need to have an organization user admin add them as a user. Organization User Admins can create users and invite them from Workspace Settings.

Basics of inviting members

Note: To invite a member to a workspace, they need to be a user in your organization. See Adding users for details on how to add users.

When you invite a member to a workspace, they are added to the All Users group in that workspace. From there, you can update a member's role or add them to groups.

Inviting a new member

To invite someone to a workspace:

1. Click the People icon in the top left corner, and open the **Members** tab.
2. Click **Invite to Workspace** and then select **Invite from your organization**.
3. Find the people you'd like to add by searching or scrolling through the member list and then check the box next to the member's name. You can hide existing workspaces members to help with searching and filtering for people.
4. Once you have selected everyone you want to add, click **Add to Workspace**.

   Tip: You can also invite a member by searching from the members page and clicking Add to Workspace.
5. After you invite a member to a workspace, you can then update their roles or groups.

Understanding roles and permissions

Organization User Admins can manage and update users as needed. In the **People** section, you can view all users and filter by license, role, or search for a specific user.

Wdesk uses Roles and Permissions to control access and the ability to manipulate features, documents and data in a Workspace. Every member of a workspace must have a role.

Roles control what features (such as Filing or XBRL) a user has access to in a workspace. Only Workspace and Organization Admins can assign roles to members in a workspace.

Permissions control a user's level of access to documents, sections of documents, or data. To set the overall access needed in a workspace, you assign a role to provide access to the features and then set permissions for the documents or data.

User Administrators and **Group Administrators** can assign roles to members.

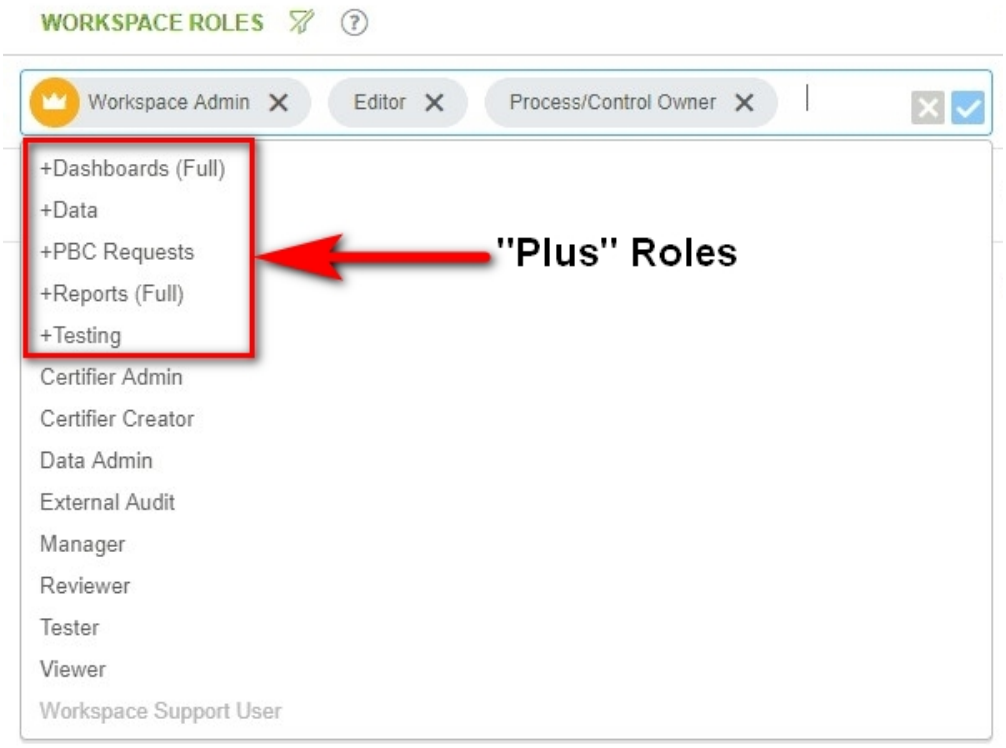
Note: There are also roles at the organizational level for those that manage all workspaces and people in your organization. See Organization roles for more details.

To determine the overall access needed, you use roles in combination with permissions. You assign users a role to provide access to a feature and then set *permissions* to determine their access to data related to that feature. For example, you can set report and dashboard permissions to control what data people can view or edit.

Every member of a workspace has a role, each with its own level of access to features. Based on the solution set for a workspace, you'll have access to different roles. Read below to see more of what each role can do.

"Plus" roles (aka "Feature Add-Ons")

In addition to the core roles, there are "plus" roles (indicated by a "+" next to the role name). These allow you to add only the specific functionality or capability to the user's role when needed. Role addition is user-specific, not group-wide. Use feature add-ons when more access is needed than a role normally provides or to tailor a role.



TIP: Set permissions for the member or group in combination with the plus roles to provide the access needed.

Setting a member with a feature add-on is done the same way as assigning a role. When a member is assigned a role that provides access to a feature, you don't need to assign a feature add-on. Here is a list of available feature add-ons.

Role	Description
+PBCRequests	This role has access to the PBC Dashboard. This role can also create, edit, send, and manage PBC Requests.
+Testing	This role has access to Test Forms, Testing Dashboard, and Reviewer Dashboard. This role can also edit test forms, create and edit test phases, mark up evidence, view and export test forms, and manage testing tasks
+Reports (Full)	This role has access to reports and can potentially create and edit report layouts, depending on permissions.
+Dashboards (Full)	This role has access to dashboards and can potentially create and edit dashboards, depending on permissions.
+Data	This role access to the Data feature.

Other roles

There are additional roles available for SOX & Internal Audit. For more details, see Overview of Database Roles in the Workiva Customer Success Center. Additional role descriptions are included in Database Roles and Available Actions.

Additional information on roles

Use the following links to learn more about Roles in specific contexts.

- Organization roles
- Workspace roles
- Database roles

Additional information on permissions

Use the following links to learn more about permissions in specific contexts.

- Dashboard permissions
- Report permissions
- Test form permissions
- PBC permissions (Workiva Customer Success center article)
- Flowchart Permissions (Workiva Customer Success center article)

Note: There is no Workspace-level permissioning.

Workspace roles

Note: Workspace roles are separate from Organization and Database roles.

Understanding workspace roles

Roles allow you to control what features a member has access to in a workspace. Roles also provide access to features, such as Filing or XBRL. Assigned roles determine what members can do in a workspace. Only workspace and organization admins can assign roles to members in a workspace.

Permissions determine the level of access to documents or data, such as a specific document or document section. To set the overall access needed in a workspace, assign a role to provide access to features and then set permissions for documents or data.

Types of workspace roles

Every member of a workspace has a role, each with its own level of access to features. Based on the solution set for a workspace, you'll have access to different roles. Read below to see more of what each role can do.

General roles

Role	Description
Limited Starters	This role has view-only access to assigned binders and reviews. They can also sign or approve certifications.
Starters	This role can review, comment, and approve documents. This role can also sign or approve certifications.
Standards	This role can create and edit documents, create links, and view the history of documents. This role can be a certification user, account administrator, and workspace admin.
Professionals	This role can create and edit documents, create links, and view the history of documents. This role can be a certification user, account administrator, and workspace admin. This role can also manage controls management and certifications.
Viewers	This role can review, comment, and approve documents. This role can also sign or approve certifications.
Editors	This role can create and edit documents, create links, and view the history of documents. This role can also be a Certifier User and Workspace Admin.
Workspace Admins	This role can update workspace settings, manage workspace members and groups, manage workspace content, view activities log for the workspace, and move files between workspaces.
Workspace Support Users	This role is for Workiva staff, such as a CSM. This has the same rights as the Professionals, Editors, and XBRL roles. For additional access, they can be assigned the Workspace Admin role if needed.

Feature-specific roles

Role	Description
Filing	This role can file documents as well as access, edit, and generate XBRL on documents.
XBRL	This role can can access, edit, and generate XBRL on documents.
Section 16 Filer	This role can file section 16 forms. To access Section 16, an Editor role is needed.
Certifier Creator	This role can create templates, processes, & letters but can only manage ones they created.
Certifier Admins	This role can manage all things in Certifications no matter who created it.

Note: Additional roles are available for SOX & Internal Audit. For more details, see Understanding database roles.

Managing members and roles

Assign or update a role

A workspace admin can assign and update member roles to give the access needed in a workspace. Roles available in a workspace are based on the solution set. For a list of roles, see Workspace roles.

To update a member's role:

1. Click the People icon in the top left corner, and open the **Members** tab.
2. Find the person you'd like to update by searching or scrolling through the member list.
3. Double-click on the person, or click the edit icon.
4. Select a role and press Enter or click the check icon.
5. Click **Apply Changes** to finish.

Update multiple members

When you have several members to update, you can assign or remove roles in bulk to save time. It's best to select members together that you want to have the same role.

To update multiple member roles at the same time:

1. Click the People icon in the top left corner, and open the **Members** tab.
2. Check the box next to each member you want to update.
3. Click **Edit Roles**.
4. Mark or clear the appropriate checkbox to assign or remove each user from a role. A dash in a checkbox indicates that some of the selected members already have this role. Roles that are grayed out cannot be assigned.
5. Click **Apply** to finish.

Remove a member

You can remove members that no longer need to be in a workspace. Removing a member could impact document permissions, so you may want to review document permissions before you remove someone.

To remove a member from a workspace:

1. Click the People icon in the top left corner, and open the **Members** tab.
2. Locate the members you want to remove.
3. Mark the checkbox next to their name.
4. Click **Remove Member**.
5. Click **Remove** to confirm and finish.

Managing groups

Workspaces come with a set of default groups. You can create and update groups to help manage permissions in a workspace.

Using group lets you set and control permissions by adding or removing people to groups. Then you can set permissions on documents for those groups. This allows you to keep the same permission structures on documents, and then control access by adding or removing people to groups.

Create a group

To create a group:

1. Click **Settings** to open Workspace Settings.
2. Select the **Groups** tab, and click **Create Group**.
3. Enter a group name and add workspace members to the group by searching for or selecting individuals.
4. Click **Create Group** to finish.

Add members to a group

To add members to a group:

1. Click **Settings** to open Workspace Settings.
2. Select the **Groups** tab.
3. Select the group you want to add members to.
4. From the **Actions** menu, click **Add Members**.
5. Find the person you'd like to add by searching or scrolling through the member list and then mark the checkbox next to that member's name.
6. Click **Add to Group** to finish.

   Tip: You can select to hide existing workspaces members to help with searching and filtering for people.

Remove members from a group

To remove members from a group:

1. Click **Settings** to open Workspace Settings.
2. Select the **Groups** tab.
3. Select the group you want to remove members from.
4. Find the people you'd like to remove by searching or scrolling through the member list and then mark the checkbox next to that member's name.
5. Click **Remove Member**.
6. Confirm that you'd like to remove the member.

Delete a group

If you no longer need a group, you can delete a group by clicking the delete icon on the **Groups** tab.

IMPORTANT: When you delete a group, any permissions granted to members by a group will be removed. Removing a group does not remove the group's members from a workspace.

Viewing workspace activities

Activities provides a list of actions performed in a workspace. You can see everything from users signing in to admins changing workspace settings. Activities are arranged with the most recent actions at the top and the oldest at the bottom.

Viewing activities

When viewing workspace activities, you can filter workspace activities by date. Select both a start and end date to see activities for a specific date range.

To view activities in a workspace:

1. Click **Settings** in the Workspace Switcher.
2. Select the **Activities** tab.
   By default, you'll see the first 100 activities in a workspace. You can scroll down to load and see more activities. Scroll to the right to see additional activity details, such as time and IP address.

Exporting activities

You can export activities to a .csv file if you need to do additional filtering or share activity data.

To export workspace activities:

1. Click **Settings** in the Workspace Switcher.
2. Select the **Activities** tab.
3. Click **Export**.
4. Enter both a **Start Date** and an **End Date**.
   You can also set a username or activity filters to narrow your export.
5. Click **Export**.

Note: The workspace activities export only shows activity at the Workspace level. For organization-related activities, refer to Viewing and exporting organization activities.

Understanding database roles

Overview

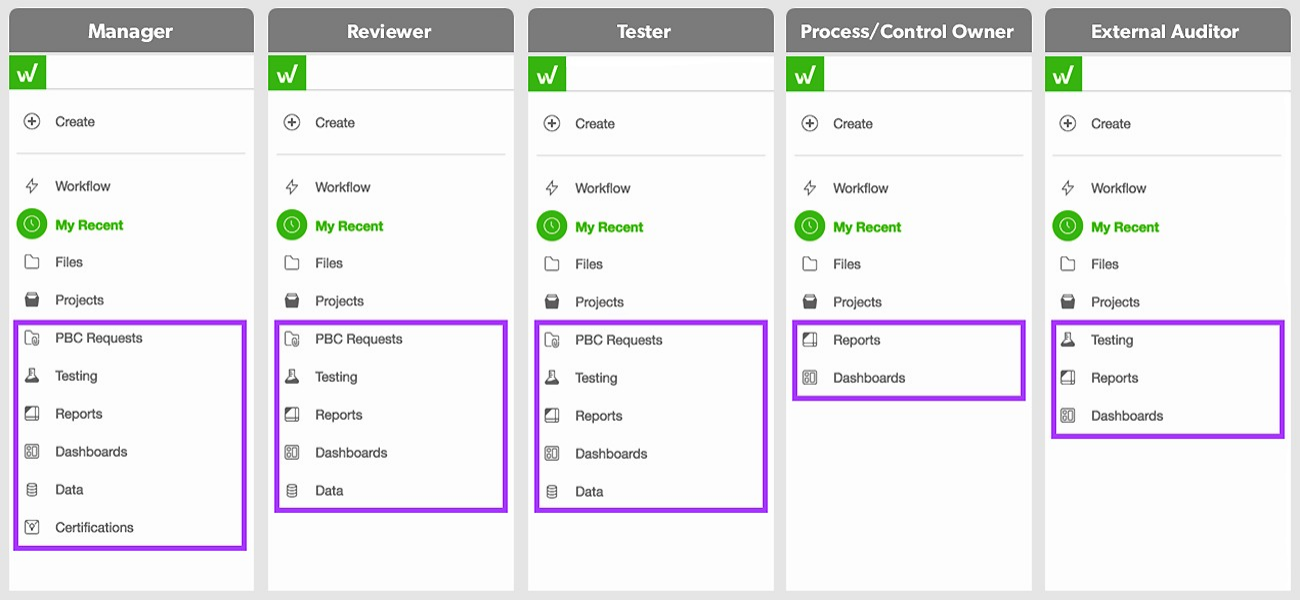
Database roles are separate from Workspace and Organization roles. Database roles control access to testing, reports, dashboards, data, and certifications.

General database roles

Each database has a different set of access permissions.

Role Name	Description
Workspace Admins	Can update workspace settings, manage workspace members and groups, manage workspace content, view activities log for the workspace, and move files between workspaces.
Workspace Support Users	This role is for Workiva staff, such as a CSM. They have the same access as the Professionals, Editors, and XBRL roles. For additional access, these users can be assigned the Workspace Admin role.
Data Admins	Have access to view and edit all data records in the database. This role is typically combined with the Manager role.
Managers	Have access to all the features in controls management - PBC Requests, Testing, Reports, Dashboards, Data, and Certifications. Managers can manage testing tasks and can create a certification process.
Reviewers	Can access Testing, Reports, Dashboards, and Data and their own testing tasks.
Testers	Can access Testing, Reports, Dashboards, and Data and their own testing tasks.
Process/Control Owners	Can view Reports and Dashboards.
External Auditors	Can access Dashboards and Reports. External auditors can also view and export test forms.

The following image shows the default options for each of these roles.



Database role functions

Testing

The external auditor role has limited access to testing and the process/control owner role does not have any access. The manager, reviewer, and tester roles can create and edit test forms.

	Manager	Reviewer	Tester	Process/ Control Owner	External Auditor
Access Test Forms	✓	✓	✓		✓
Access the Testing Dashboard	✓	✓	✓		
Access the Reviewer Dashboard	✓	✓	✓		
Create and Edit Test Forms	✓	✓	✓		
Create and Edit Test Phases	✓	✓	✓		
Markup Evidence	✓	✓	✓		
View and Export Test Forms	✓	✓	✓		✓
Manage All Testing Tasks	✓				

For more details on testing, refer to Using the Testing Dashboard and Preparing Your Test Form.

Reports

All roles are able to access reports based on permissions. The process/control owner and external auditor roles can only view reports and cannot create or edit report layouts. For more information on report layouts, refer to Working with Reports.

	Manager	Reviewer	Tester	Process/ Control Owner	External Auditor
Access Reports*	✓	✓	✓	✓	✓
Create Report Layouts	✓	✓	✓		
Edit Report Layouts	✓	✓	✓		

* Available based on the permissions set

Dashboards

All roles are able to access dashboards and see data based on permissions. The tester, reviewer, and manager roles can create and edit dashboards. See Creating a Custom Dashboard and Using Dashboards to View Data to learn more about dashboards.

	Manager	Reviewer	Tester	Process/ Control Owner	External Auditor
Access Dashboards*	✓	✓	✓	✓	✓
Create Dashboards	✓	✓	✓		
Edit Dashboards	✓	✓	✓		

* Available based on the permissions set

Data

The process/control owner and external auditor can't access data records. The tester, reviewer, and manager roles can access data records, based on permissions. See Viewing report data to learn more about working with data.

	Manager	Reviewer	Tester	Process/ Control Owner	External Auditor
Access Data*	✓	✓	✓		
Create Data Records*	✓	✓	✓		
Edit Data Records*	✓	✓	✓		

* Available based on the permissions set

Certifications

All roles can sign certification letters assigned to them. Learn more about using certification in Working with Certifications.

	Manager	Reviewer	Tester	Process/ Control Owner	External Auditor
Sign Certification Letters*	✓	✓	✓	✓	✓
View Vertifications	✓				
Edit Certifications	✓				
Send Certifications	✓				

* Available based on the assigned certifications

Using the Wdesk database

Overview

This section discusses how the Wdesk database helps you to manage and analyze complex data and keep all of your data accurate and up-to-date. Some key points about the Wdesk database include the following:

- Reports in the database are driven by database queries. Reports have cells with "structured data" — various properties and relationships from multiple data records.
- Any change in a record automatically flows through to all other instances of that data no matter where they exist within the database.
- Connected spreadsheets link this data, allowing you to create reports, use formulas to create new data as well as charts and tables for Presentations.
- You can create and manage data in the Record View.
- Records have properties and relationships.

Selecting **Data** allows you to see all the data in the account. The default view is for Data Types (Action Plan, Control, Person, Process, Risk, etc.), but you can also look at the Data History (which allows you to see any data changes between two dates) and snapshots, which is a static representation of the database at a particular point in time.

Data records are present in many places in the database: record views, forms, reports, charts and graphs, and the record views of other records. Every data record has a home page known as a Record View. This page shows all the properties and relationships for that record. This page also lets you modify all the properties and relationships.

Differences between a spreadsheet and a database

Both spreadsheets and databases store and manage sets of data. The difference between them is that spreadsheets store data in a matrix of individual cells, while databases typically store data in tables, and then links the tables. In addition, spreadsheets are generally set up to be used by one person at a time, while databases enable multiple people (or programs) to access and manipulate the same underlying data simultaneously.

Linking

Data linking is always *from* the database *to* the spreadsheet, report, or presentation, never the other way around. This ensures that data in a report is current, no matter where it is changed or stored in the database. Charts and graphs based on the database will also be dynamic and accurate. Links to the database are always current, but links between spreadsheets, reports, and presentations require manual updating to be current.

Links are created by selecting and copying fields on record views.

Test forms

SOX test forms bring together content from multiple records in the database such as controls, risks, and test steps. One way in which test forms are different from control record views is that they contain properties and relationships from multiple records, as well as additional functionality for the testing process. Test forms permit you to collect attachments and use them to highlight of issues, and unlike control records, they can be locked down and rolled forward from one period to the next, so that you don't have to recreate them for every reporting period.

Refer to Testing in the Wdesk database for more information on working with test forms.

Connected spreadsheets

Connected Spreadsheets pull data records from a Report. This allows you to use aggregated formulas to create charts and tables for presentations. Connected Spreadsheets must be updated manually to be certain of having the most recent data.

Database notes

- **Report Draft Views** — Whenever you apply a Filter to a row, it creates a Draft View of that report. It will disappear once you leave that report, but you can choose to save it for future reference.
- **Adding a new column or changing a header** — This can be done by the implementation team. Contact them with your request.
- **Table Header icons** — The nature of the column is shown by an icon in its header.
  - A capital "A" symbol indicates a short-text field.
  - A capital "A" with four horizontal lines indicate a long-text field. The primary difference between this and the short-text is that long-text fields can contain carriage returns and have a higher character limit.
  - A calendar icon represents a date field.
  - An icon with a cursor and one blue box is a single-select field such as frequency, while two blue boxes represents a multi-select field such as preventative/detective.
  - A pound sign (#) represents a numeric value.
- **RCM Updates** — If major updates need to be made, reach out to the implementation team.

  Best Practice: Do all updates to the RCM from within the database.

Refer to the Database testing FAQ for additional information.

Working with reports

Reports are a powerful, flexible tool that allows you to view and manage data in a single, centralized location. You can track audit information about changes made to data records and see changes that you and others made during the life of that record.

Reports allow you to organize your data in different ways. You can sort or filter a column to organize rows to see what you need. For example, this would allow you to see control owners in a particular geographic location.

Pivoting allows you to see your data in new ways for deeper analysis. You can save a layout as a custom view to use again or as a tool to collaborate with your team.

To see a list of available reports, click **Reports** in the navigation menu at the left of the screen. Click the report name to open the report.

Working with data in reports

You can adjust the information that you can view in reports by clicking on the **View** icon in the toolbar and checking the boxes in the drop down to view or hide the row and column coordinates (the letters and numbers identifying them in a table).

If the **Data path** option is checked, a string of text will appear between the toolbar and the table. This provides visibility into the path between a selected cell (via properties and relationships) and the starting point of the report. This option is turned on by default.

Cell Highlighting is useful for knowing data relationships and **Auto resize rows** helps to keep all data visible.

Aggregating data types

You can make certain information easily viewable by performing aggregation functions on data types. These functions are accessed from the drop-down menu next to the Report Data table in the Data Layout area at the right of the screen.

The following table lists the available aggregation options.

Option	Description
∫x Count (All Values)	Displays the number of items for a given data type.
∫x Count (Distinct)	Displays the number of unique items for a given data type.
∫x Average	Averages all items for a given data type and displays the results.
∫x Sum	Sums all items for a given data type and displays the results.
∫x Join	Creates a comma-separated string containing all items of a given data type.
∫x Join (Unique)	Creates a comma-separated list of unique items of a given data type.
A↓ Sort Ascending	Arranges data in a low-to-high sequence.
Z↓ Sort Decending	Arranges data in a hight-to-low sequence.

You can save these aggregate views as part of your custom views for quick and easy reuse by clicking **Save As**. Custom aggregate views will appear in the left-hand panel along with dashboards you've created. Refer to Saving a custom view for more information.

You can also view a **user-centric report**, which displays data directly related to you within a given category. If you have an implementation team, they can help create these reports. You can also reach out to your Workiva contact for more information on these reports.

Saving a custom view

After you've customized your report using the Data Layout panel, filtering and sorting columns, resizing rows and columns, aggregating data types and pivoting your data, click **Save As** on the toolbar and give your view a unique name. This saves your settings as a custom view. You can return to this view at any time by clicking on the title of the view in the left-hand panel. You can also rename or change your custom view as needed.

Note: Custom views are report-specific.

To learn more about pivoting data, refer to Pivoting data.

Working with columns in reports

You can organize your data in different ways in reports. Working with columns allows you to view your data in new ways for deeper analysis.

Hiding or displaying columns

If you do not want to see particular columns of data in your report, you can remove these columns from your report by hovering over the data label in the **Data Layout** panel and then clicking the red X that appears on the left of the name.

To unhide a column:

1. Click **Click to Add Data** in the **Data Layout** panel. This can be found at the bottom of the **Report Data** list.
2. Select the columns you want to unhide from the drop-down.
3. To restore the Report Data list to its original state, click the **Reset Layout** icon.

Filtering columns in reports

You can also *filter* columns for easier data visibility. For example, this allows you to see Control Owners in a particular geographic location by filtering for just that location.

To filter or sort a column:

1. Hover over the column heading and click on the filter icon
2. Select how you wish to reorder the column using the search feature or checking boxes as desired.
3. Click **Apply**.

Note: Columns with filters applied have a blue filter icon in the column head.

To remove a filter, click **Clear Filter** and then **Apply**.

Tip: Using the Advanced Filter Bar in the toolbar allows you additional insight into report filters — especially for multiple filters and filters on hidden data. You can access the advanced filter by clicking the blue filter icon from the main toolbar.

Sorting columns in reports

In addition to filtering, columns can also be sorted. You can filter in ascending (A->Z) or descending (Z->A) order.

To sort a column:

1. Hover over the column heading and click on the filter icon.
2. Click on the sort order you want.
3. Click **Select**.

To remove the sort, click on the filter icon at the top of the column and then click on the chosen sort again to remove it. Then click **Select**.

Notes

- Columns with sorting applied have a sort indicator in the column head.
- A sort is different from a filter and does not appear under the Advanced Filter icon in the toolbar.

IMPORTANT: Columns that have been pivoted cannot be sorted. For more information on this, refer to Pivoting data.

Resizing a row or column

To resize a row or column, click and drag the line between them. An indicator displays the row or column widths in pixels. You can also double-click the divider after a column or row to auto-size to the widest item in that column or row. If you select the entire table by double-clicking the home cell (top left of the column coordinate row and column), double-clicking on a row or column divider will resize the entire table.

Bulk editing data

As you work with data and reports, you may have occasions when you need to make the same update to several records. To save time, you can also bulk edit records in reports.

Using bulk edit

When you bulk edit records, you can make changes to data or clear data values. Generally, it's best to use bulk edits to make the same changes to a group of records.

All normal permissions and editing rules are applied to bulk edits. You can only edit cells in a single column and cannot edit records across columns or collapsed fields.

To bulk edit records:

1. Click **Reports** and open the report where you'd like to update records.
2. Select the records you want to update.

   Note: You can't update fields for collapsed records.
3. Right-click the records and select **Bulk Edit**.
4. In the **Data View** panel, click to edit and make your change.
5. Click **Confirm Edits** to finish.

Pivoting data

Pivoting allows you to display your data in new ways for deeper analysis. A pivot table layout can be saved as a Custom View and exported to Excel. Refer to Working with reports for more information.

Pivoting data in a report

If you want to pivot your data, click the **Data Layout** icon in the right-hand panel to open the Data Layout tab. Once in this tab, create a pivot table by dragging and dropping data labels from the data list into the appropriate drop area (Pivot: Row, Pivot: Column, or Pivot: Group By).

You can also click on the **Click to Add Data** drop area for any of these options and select an item from the dropdown menu that appears or type a term to search.

Pivoting data by row

Pivoting by row will display in the table data based on the order of the selected data. Use click and drag to add the data to the Click to Add Data drop area. For example, you could have a table with a pivot based on Frequency, showing how it interacts with the other types of Report Data.

Pivoting data by column

Pivoting by column can be added to a report that has had a row pivot applied.

Pivoting data by group

Pivoting by group separates report data into collapsible sections based on the selected report data.

Reordering report data categories

You can reorder Report Data categories by dragging and dropping them to see your data in any combination. You can add further types of data from the Report Data list to your pivots and view and compare your data in multiple different combinations.

Removing a pivot

To remove a pivot, hover over the data item and click the red X that appears or drag it back to the general Report Data area.

Managing reports

Reports provide a visual display of critical data. Reports utilize charts and tables to display key information.

Organizing reports in folders

Reports can be organized into a folder structure as needed to keep appropriate reports associated with each other.

To create a folder:

1. Click **Create** in the upper right of the window.
2. Enter the name for the new folder in the dialog.
3. Click **Create** in the dialog.
4. Select the reports you'd like to move, then click **Move**.
5. You can also use the dropdown menu to place them in a preferred folder. Folders can also be created within folders if desired.

Creating charts and tables

If you want to see your data in a more visual format, you can add a table or chart using the Chart or Table button in the toolbar. For more information, refer to Bar charts for dashboards, Pie charts for dashboards or Tables for dashboards. For instructions on editing the dashboard itself, refer to Using Dashboards to View Data.

Exporting a report

To export a table report view to your computer,

1. Click **Save** so that any changes to the custom table view will be part of your export.
2. Click **Export** on the toolbar.
   An .xlsx file will automatically be generated containing your report view.

Viewing report data

Reports are queries into a database that give an up-to-date picture of the data. Any user with permissions for a report can view its content.

Viewing audit history

The Wdesk database keeps an audit record of each change made to a data record, and the audit record can be viewed from the right-hand panel. To view the **History** panel, click the **History** icon on the right-hand side of the screen.

Viewing record details

To see the complete details of a data record, including its relationships to other data, right-click on the cell and select **View Details**. The details appear in a tab in the right-hand panel.

Note: If you have permission, you can also edit information in the Data View panel by highlighting a field and clicking the pencil icon on the right. When you have finished editing, press Enter to save your changes.

You can examine information in more detail by clicking on the data in the **Data View** panel. You can also view this information in a new tab by clicking the icon in the upper right corner of the **Data View** panel. This will allow you to switch between the report and the data details using the tabs at the top of your screen.

Viewing aggregated details

You can select and view the content of an aggregated cell in the right-hand panel of a report. The records that make up the aggregation are displayed and these records can be selected to see additional details.

Database Testing FAQ

Testing — General

Question: How do I delete a Test Phase/Sheet?

Answer:

- If Testing has *not* started, it can be removed by your customer.
    1. Click **Test Phases**.
    2. Click **Remove**.
- If Testing *has* started:
    1. Select **Data**> **Test Phase**> **Search** and search for the Control number.
    2. Find the associated audit program and test phase name.
    3. Open the record and click **Delete**.
- If there is a duplicate Test Phase: This is not common and should not be possible. If nothing has happened on either phase, one can be deleted. If testing has started, you will need to investigate to figure out which one to delete.

Question: Is there a quick way to bulk add Test Phases to Test of Controls/Test Forms?

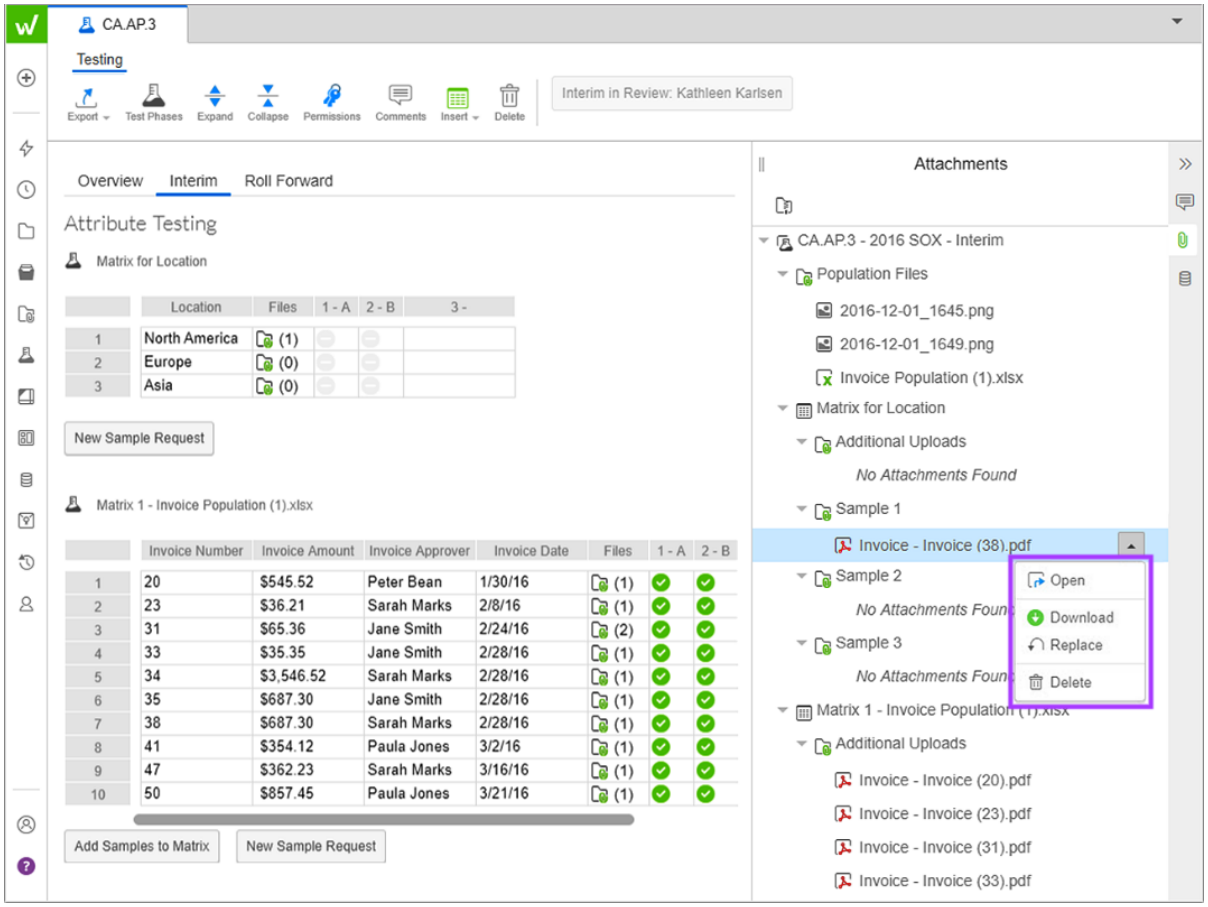
Answer: Yes, you can import test phases.

Best Practice: Ask the person who did the implementation, as they will probably have their import work saved and you can build off that.

Question: How do I delete an attachment?

Answer: To delete an attachment:

1. Open the Attachment panel.
2. Hover over the file.
3. Open the menu.
4. Select **Replace** or **Delete**.



See Managing test form attachments in the Workiva Customer Success Center for more **information on working with attachments.**

Question: How do I view a population file attached to a test phase?

Answer: You can either download the file or open in the random sampler but you can not open a population attachment in the viewer.

Question: If my customer cannot see any options from the Manage Test Phases dropdown, how do I add them?

Answer: You must enable `?debug` to fix this.

1. Navigate to the **Data** tab.
2. In the list of options choose **Test Phase Type*.**
3. Click **Create** (next to the search field at the top of the page) to create a new test phase type.
   Be sure to select an Audit Program to tie it to so it will be available in the dropdown.

Notes

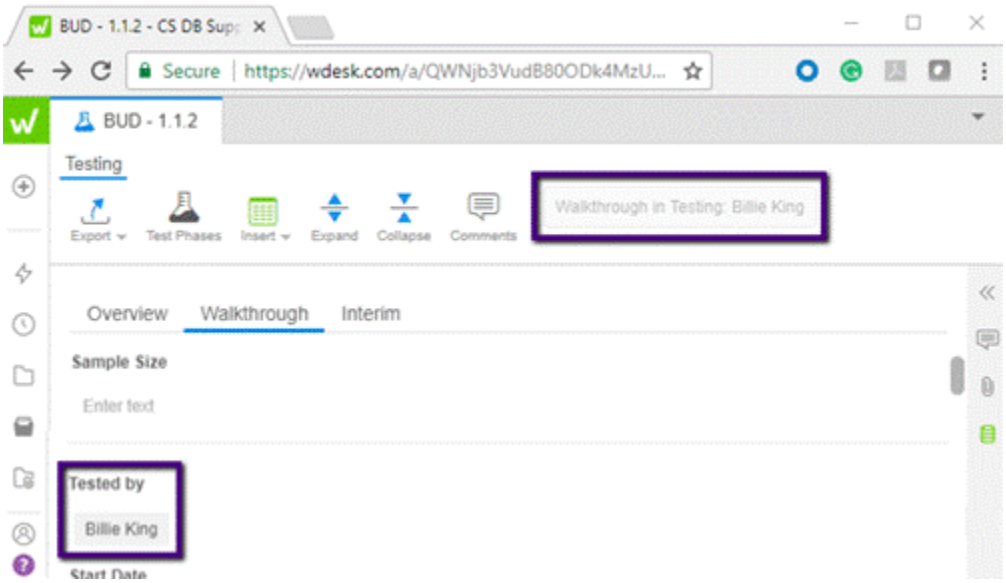
- When in the **Testing** tab a user will have access to "All Users" as a Manager, Tester and Reviewer role. The External Audit role will not see the dropdown.
- The dropdown you choose will be the default when you come back to that page until you change your selection. For example, if you change the dropdown from yourself to All Users, once you navigate away and come back it will bring you right back to the All Users selection.

Testing — Workflow

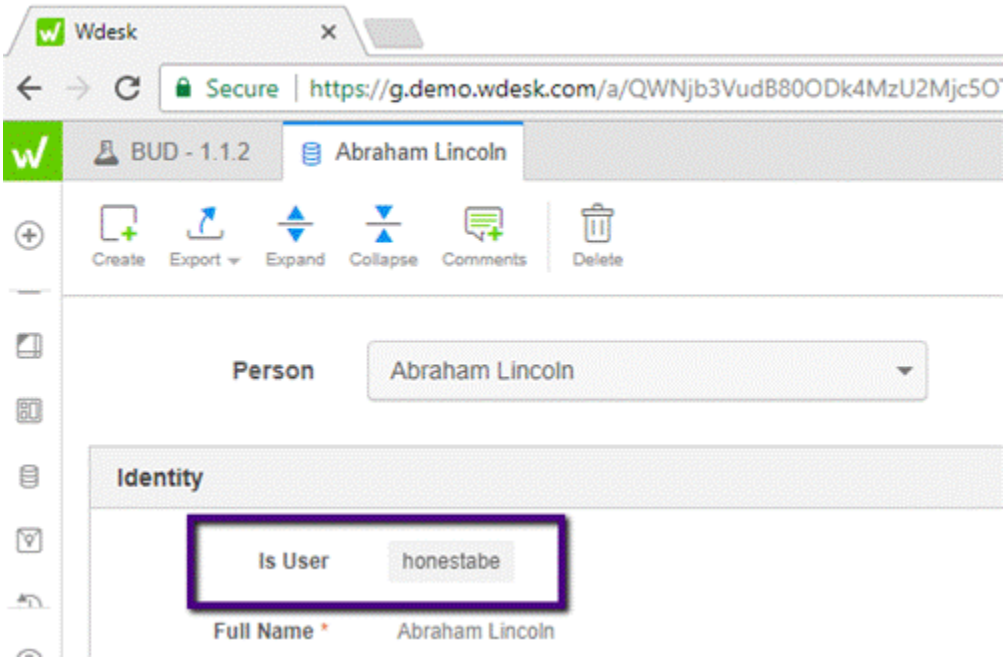
Question: What should I look for if the workflow icons on the top of the Test Phase/Sheet (Start Testing, Send for Review, Approve/Reject) are not present?

Answer: Make sure the person is assigned as the Tester or is added as a Reviewer to the review plan.

Person assigned as the Tester

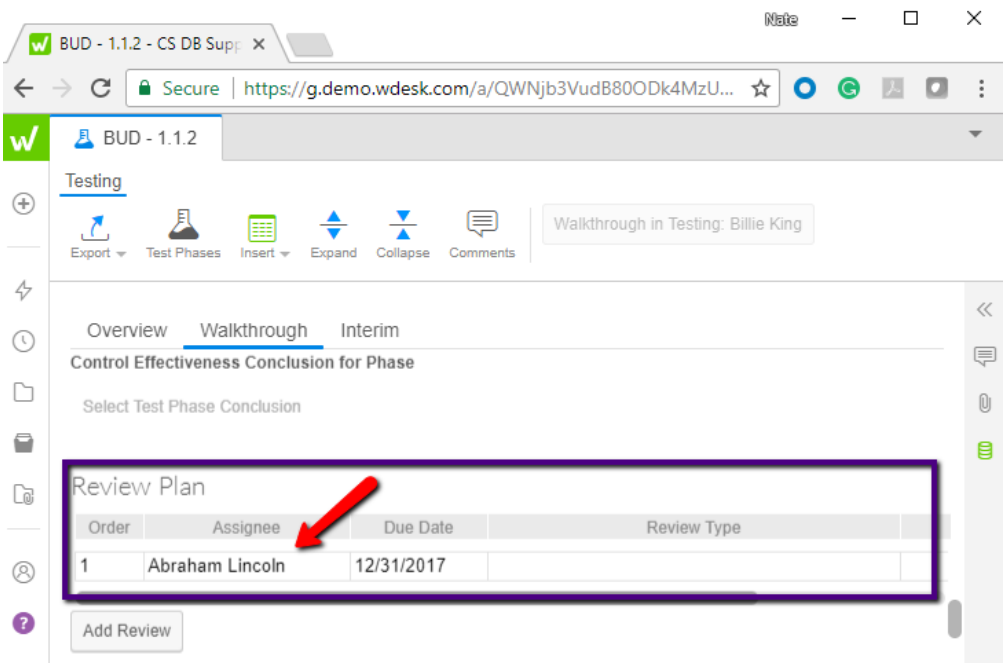


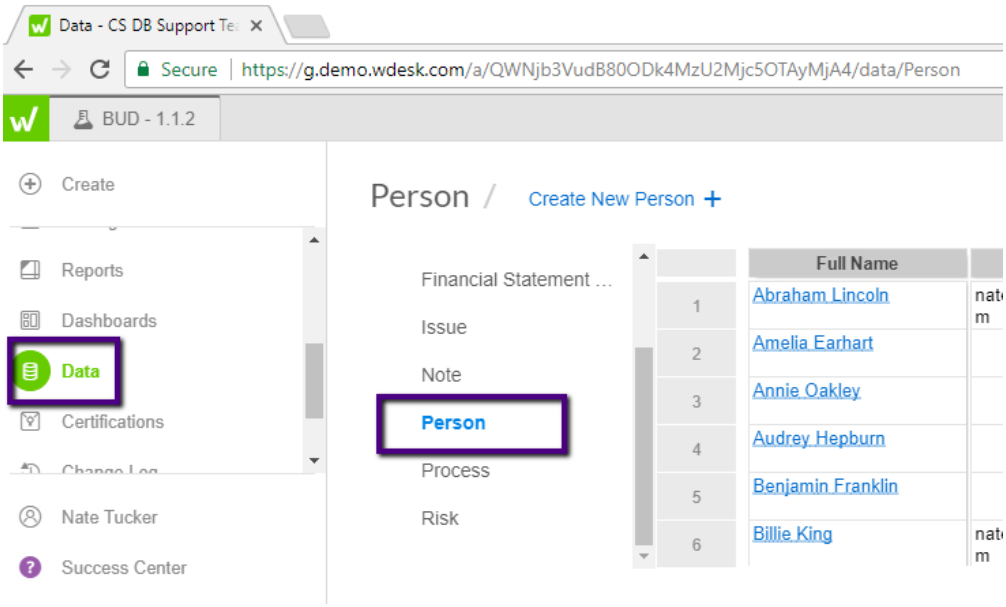
Person added as a Reviewer



Answer: If a person is assigned as the Tester or as a Reviewer and the icons still do not show for the assigned user, check that user's Person under Data > Person to ensure that the 'is User' field is filled out.

IMPORTANT: The 'is User' field needs to be filled out for any workflow feature in the database to function properly.

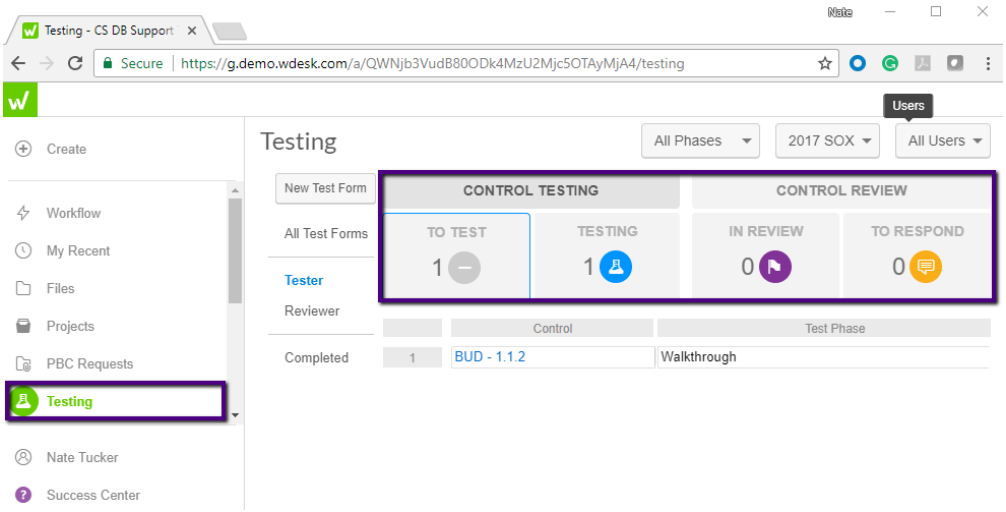




Note: If changes are made to the review plan after a form has been sent for review, it may cause these buttons to become out of sync.

Question: Do you need to have a review plan in order to update the workflow on the Testing dashboard?

Answer: Yes, the review plan drives the workflow for the **Testing** tab dashboard.



Question: What is the best way to update a review plan on a test form?

Answer: The review plan should only be changed for tasks that have not yet started. One example of this would be if the test form is already sent to Reviewer A; changing Reviewer A will cause issues, but changing Reviewer B will not, because their task has not been sent yet.

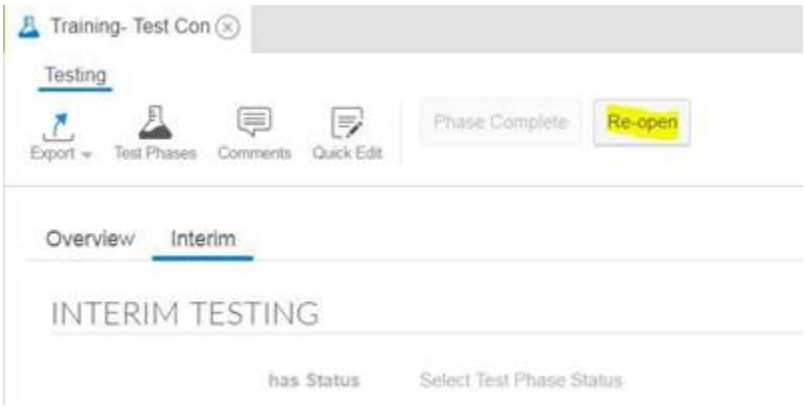
IMPORTANT: If the review plan is changed in a report the task will not automatically get re-assigned.

If the Test Form has *not* been sent for review yet (so it is still in testing status), any part of the review plan can be updated because the tasks have not yet been sent.

If the Test Form *has* been sent for review:

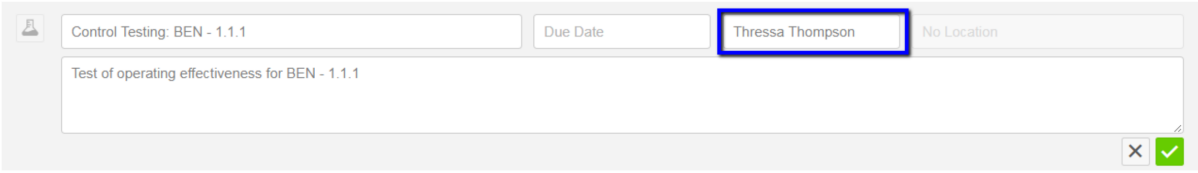
1. Return the form back to the Tester.
2. Update the Review Plan and order as needed.
3. Have the Tester send for review again.

   Note: A manager can use the "re-open" link on the test form at any time and add a Review Plan.



Question: How do I change the Tester after Testing has started?

Answer: Update the Testing task and the new Tester will flow through to the test form. This will keep the test form and task synchronized to the same person. You can also pull out of testing then update depending on the tester's availability.
A final possibility is to change this from a report; but remember that doing this will not automatically update the task associated with the test form.



Testing — Dashboard

Question: How does the Testing dashboard work?

Answer: Refer to the following table.

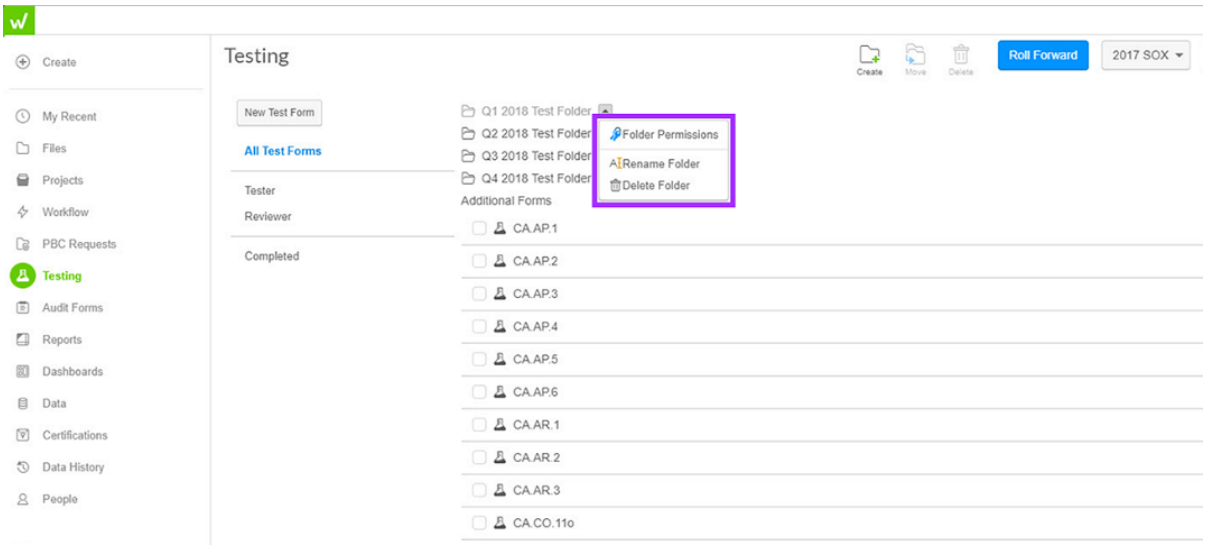
All Test Forms	Show all test forms that have been created for a specific audit program, regardless of the test phases.
Tester	• **To Test: Shows test forms with a test phase that has not been started.** • **Testing: Test forms move to this bucket after clicking Start Testing.** • **In Review: Test forms move to this bucket after clicking Send for Review.** • **To Respond: Test form moves to this bucket if Return is clicked.**
Reviewer	• **In Review: Test forms move to this bucket after clicking Send for Review.** • **To Respond: Test form moves to this bucket when Return is clicked.**
Completed	• Test form and all tasks move to **Completed** once they are approved.

Note: If no review plan is created then the test form will remain in Testing after "Start Testing" is selected. There is no way to move it to Completed unless a review plan is set up and approved. This can be set to the Tester and they can approve their own to move the test form through the workflow.

Testing — Permissions

Question: Are there permissions for Testing?

Answer: Yes, you can either select permission on the test form itself or on folders where you can organize your test forms.



See Managing Test Form Permissions in the Workiva Customer Success Center for more information.

PBC Requests FAQ

Question: Which file types can be uploaded as an attachment?

Answer: You can upload just about any file types as attachments. However, there are restrictions on the types of files you can open in the Wdesk viewer. Only the file types listed under the "Sample evidence files" answer below can be opened in the evidence viewer. Other file types can be attached for audit trail purposes, but cannot be displayed in the viewer.

- **Sample Evidence files** can only be opened and annotated if they are in the following formats:
  - Word (.docx, .doc, .txt, .rtf),
  - Excel (.xlsx, .xls, .xlsx, .csv)

    CAUTION: There is a functional limit for excel files. It is not clearly defined but Workiva has seen issues happen when rows and columns exceed a certain amount even if the file is technically under the size limit. There is no front-end limit imposed so your customer will not get an error message, they will just not see the file appear.
    The best workaround is to save file as a PDF and then upload it.
  - PowerPoint (.pptx, .ppt) and
  - Images (.pdf, .png, .jpg, .gif).
- **Population files** for random sampling.
  The only file types that can be uploaded to be used as auto-generated Population files are files that are Excel-based (.xlsx or .csv).

Question: What is the maximum size and number of files for PBC requests?

Answer:

- **Populations:** 10 MB per file to be able to do random samples in the database - sample from 50,000 rows.
  Larger files can be uploaded but would need to be manually sampled outside of Wdesk.
- **Sample Evidence:** The recommended size is <100MB. We scan files for viruses up to 500MB, however, it should be noted that performance (time to upload/ download) is directly related to the size of files.
  Wdesk supports a maximum of 25 files per sample row.

Question: What is the maximum number of files that can be randomly sampled?

Answer: The random sampler max is 200 items.
Regardless of file size, no more than 200 samples can be selected. If your customer is making explicit selections, they cannot use "Select all" to choose specific items (e.g. above a certain dollar threshold).

Another option is to save the file, filter for the selection to sample from, re-upload the file and use the filtered file to create sample requests.

Question: What are common causes of errors when uploading attachments?

Answer: If the document has any of the following, it will cause uploading errors:

- Is password protected, has macros, or is too large.
- Has a hard return in the header row
- Has a " / " in the header row
- Has a " _ " in the file name

Question: How do I remove a PBC request?

Answer: To remove a PBC request:

1. Select **PBC Request**, and copy the "ID" from the end of the URL.
2. Select **Data** > **Requests**.
3. Enter the ID from the URL in the search field, and click enter.
4. Open the request and click **Delete**.

IMPORTANT: Deleting the request will also delete all attachments from the Test Form.

Question: What license type is required to edit PBC requests?

Answer: If not requested, a tester, reviewer, or manager role can edit requests. Once requested, you have to be the task owner, or a Pro license.

Question: Can PBC request emails be bundled?

Answer: Yes, email updates can be bundled. If there is any activity within the delay setting on the account, the clock will be reset. For example, if you have a 10-minute delay, send a request, and 5 minutes later send another request, the delay will start after the second request is sent. The total time to receive the request would be 15 minutes.

Question: When is an email reminder sent for a PBC request?

Answer: An automated reminder email will be sent the day it is due and the day after it is due if they have not completed it. Manual reminders can be sent as needed.

Question: Are permissions available for PBC requests?

Answer: Yes. See PBC permissions in the Workiva Customer Success Center.

Question: Do PBC request providers have to log in to complete the request?

Answer: Yes.

Question: Who can access PBC requests?

Answer: The following people can access PBC requests:

- Request provider
- Request reviewer
- Users with viewer permissions or higher for the request
- Database admins*
  * This does not include the creator of the request, if they don't fit any of the criteria for bullets 1 through 4.

Question: What happens to PBC requests and testing tasks when the assigned person is removed from the account?

Answer: Tasks will remain assigned to the removed user but can be reassigned or deleted by the person who created them.

Question: What happens to PBC requests and testing tasks when the creator is removed from the account?

Answer: Tasks will still remain but only manager/pro users will be able to delete it

Question: Where should I create a sample request if I already have the population?

Answer: If you create a population and need to request the sample, do it from the "New Sample Request" on the test form. If you do it from a PBC request it will duplicate and create a new matrix for that sample. Basically, use PBC for new requests and the test form to continue a request process.

Question: What does the warning message "Request Distribution Errors {#] requests failed to distribute." mean? And how can we resolve it?

Answer: If your customer receives this message:

1. Navigate to the PBC dashboard.
2. Add `?support` to your URL, and refresh the screen.

   IMPORTANT: Do not tell your customer to add this.
3. Click **Validate Requests** in the bottom left corner.
   The validation will return a list of errors for the requests that failed. Errors may be caused due to description length, undefined user, task title length, etc.

Data, Record Views, & Linking FAQ

Question: What is the best practice to delete a customer-facing Control?

Answer: At the control level, decommission and add a column in evaluation for (decommission). If you have not already then you should reach out to the implementor to ensure that on the applicable reports the decommissioned controls are filtered out.

Question: When creating a new Control Stakeholder, what's the difference between choosing Person or Title?

Answer:

- **Person** can be selected, if a specific person will always own the control, for example, Pat Thompson.
- **Title** can be selected if a specific title will always own the control, for example. "Director of Accounting".

Caution: If you use a title, you will not be able to utilize user-centric reports.

Question: What happens when you delete data from the database that is linked to other documents?

Answer: The destination links will not show as broken but data will still be in the cell or where the text link is. You or your customer will need to manually remove the destination links and then run a validation.

Reports FAQ

For more information on reports, see Reports in the Workiva Customer Success Center.

Question: How do I delete a report?

Answer: You must have a Database Admin + Manager role. When you have this, you will see the **Delete** button in the upper right-hand corner of the Report landing page.

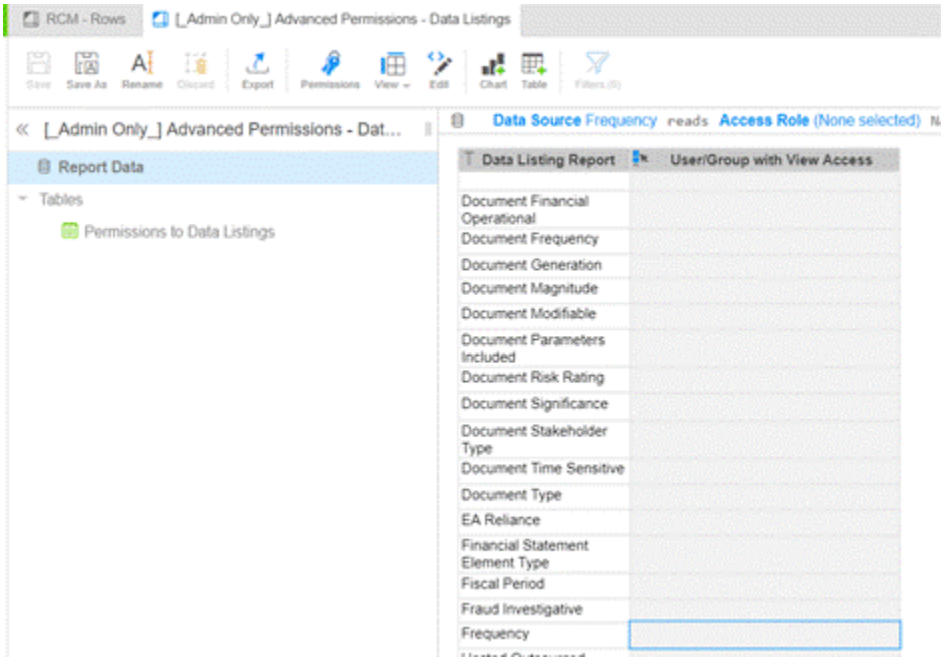
Question: How do we use the [Admin Only] Advanced Permissions - Data Listing Report?

Answer: This report shows a listing of all edge datatypes in an account (if all custom ones have been added) and allows an Admin to easily give access to all records for that datatype even if they don't exist in a report that user has access to.

For example, if your customer has access to the report and they see a column for frequency and that column only has weekly and bi-weekly in their view, if they use the dropdown to change the relationship they will only see those two items.

To fix this, you will have to go to the Data Listing report and give them access to all records for that datatype. Double-click in the **User/Group with View Access** column, add the names of the individuals or groups and press Enter.

IMPORTANT: Do not give them permissions to the report itself.



Question: Who can update permissions and create editing rules on a report?

Answer: You must have a Database Admin + Manager role to update permissions and create editing rules on a report.

Question: Can I save a layout with new column and row heights?

Answer: No. Column and row heights do not save or persist after navigating to a new page.

Question: Is there a way to see tracked changes in reports?

Answer: No. You will have to rely on the change log, snapshots, and data history.

Question: Can we create a report off the People tab> roles?
Answer: No.

Question: How do we use the [Admin Only] Advanced Permissions - Reports?

Answer: This report shows a listing of all reports in the account. It gives an Admin an easy way to add viewing permissions to reports. It does not allow you to add editing rules.

Permissions FAQ

Remember that Roles do not give view/edit permissions, they only give access to specific features in the left-hand database panel. One example of this would be that a user could have the role of manager, but if they don't have view permission to any reports then when they selected "Reports" they would not see any reports. They would need permission to the report then to edit data they would need to be included on an editing rule on that report to then edit that data (if not Data Admin).

Refer to Report permissions in this document, and see Managing Report Permissions and Database Roles in the Workiva Customer Success Center for more information.

Question: Why is a customer not able to see the People tab?

Answer: In order to see the People tab, the user needs to have the Users/Groups boxes checked under Admin Privileges.

Question: Are permissions available for reports?

Answer: Yes. Refer to Report permissions in this document and see Managing report-based permissions in the Workiva Customer Success Center.

Testing in the Wdesk database

Overview

You can manage your testing process efficiently and effectively in Wdesk. Wdesk integrates information in one location and allows you to see real time status for your controls. Test forms are configurable and built for your controls based on test phases, test steps or attributes, and PBC requests.

You can also view and edit your test forms, as well as add comments to any testing information. The testing dashboard is a visual tool for monitoring your testing progress. The test form itself gives you ready access to all the information you need to perform control testing.

The testing viewer allows you to see and annotate samples. Attributes, such as a signature or dollar amount, can be dropped onto the test sample in the viewer. You can drag and drop markup onto the sample using shapes, lines, tickmarks, and text to communicate critical information.

To share your documents with users outside of Wdesk, you can Export as PDF with Markup for specific evidence or for the entire test form. The PDF will retain all the markup you've added.

Using the testing dashboard

As a Tester, the Testing Dashboard is a visual way to easily monitor your testing progress step by step. Items may move back and forth between the In Review and To Respond categories as needed to address comments stemming from the review workflow.

Accessing the dashboard

To access the dashboard, click **Testing** in the left-hand navigation menu, then click **Tester**.

Viewing testing details

Once you've started testing, the dashboard displays the status of all tests in your selected program. The dashboard contains dropdown filters for test phase, program and user. By default, **All Phases** and **All Users** are displayed.

Note: Phase and user filters are not available on the All Test Forms list. Instead, you can search for test forms by name using the search feature. Click the title of a test form to open the test form in a new Wdesk tab.

To customize the display of your task lists, select specific phase, program, and user combinations of the dropdown filters. These combinations will determine the tasks listed on your dashboard. You can click a field to see requests in that category, and follow their progress.

Category	Description
TO TEST	Displays controls that haven't started testing yet.
TESTING	Displays controls currently being tested.
IN REVIEW	Displays controls currently being reviewed. These tasks do not currently require any action from you as the Tester.
TO RESPOND	Displays controls requiring a response in order to continue through the review process.

Managing "In Review" test forms

If you hover over an item from the In Review category, a dropdown appears to the right with the following options:

Edit: Allows you to change info for a testing task.

Remind: Automatically sends a reminder to the person assigned to the control.

View Activity: Display a popup dialog with a record of actions associated with the test form.

Delete: Removes the task once you confirm your decision to delete.

Creating test forms

After your testing process is defined, you can create test forms. These test forms record testing information for controls for a program in one or more phases of testing.

Viewing all test forms

Before creating a test form, you'll first want to ensure that a test form for that control does not already exist. To do this, navigate to the entire list of test forms by selecting the **All Test Forms** link on the **Testing** dashboard.

Tip: If you have a long list of controls, use the search box to quickly find and navigate to an existing test form.

Best Practice: When creating test forms, use the All Test Forms view as it yields the listing of all test forms for a given audit program.

Creating test forms

To create a test form:

1. Choose a program.
2. Select **New Test Form** and begin typing the name of a control in the dialog to see a filtered list of controls.
3. Select the control(s) for which you'd like to create a test form.

4. Click **Create Test Form**.

   Note: When you create a population request for a control before a test form is a created, a test form is automatically created.
5. Click **Create Test Form** when you're done.
   After you've created a test form, you'll be taken back to the All Test Forms list, where you can see a list of all test forms for your controls.
6. Click a test form to open it. You can now edit the test form as needed.

To create a test form for a different program, use the drop-down in the upper right corner first. The **Program** filter will allow you to select a different program. Then follow steps 2 through 6.

To learn more, refer to Preparing a test form for testing.

Preparing a test form for testing

To prepare your form for testing, you need to add test phases, test steps, and attributes.

Test form Overview section

In the **Overview** section of the test form, you'll find information about the overall testing process for the control. Some examples of information in this section include the total number of samples to be tested, the testing techniques for this control, and documentation of the overall testing conclusion.

In the **Testing Information** section you can add test steps and attributes for the control. These test steps and attributes are automatically applied to all testing phases.

To add a test step:

1. Right click in the table under the **Test Step** column.
2. Select **Insert Test Step**.
   A test step with a number appears in the table.
3. Enter a test step name and description in the associated fields.
4. Review the **Phases** column in the "Test Steps and Attributes" table. If you do not want to apply a test step to all testing phases, you can associate newly created test steps and attributes to individual test phases rather than associating them to all phases for the test of control.
5. Right-click on the **Phases** column in the "Test Steps and Attributes" table, and click on **Modify Test Phases**.
6. Add or delete test phases as needed.

Note: If you don't use test steps in your process, you can insert a single placeholder for the first test step. Then leave the test step name and description blank and add attributes. After adding a test step, you can create associated attributes.

Adding attributes to a test form

There are two types of attributes: testable and non-testable.

Testable Attributes: require a pass, fail, or not applicable conclusion for each sample.

When you add a testable attribute, a new row is added to the table and a letter will appear in a gray cell in the Attribute column.

Non-testable Attributes: can be used to capture a value or conclusion that is more qualitative in nature.

When creating a non-testable attribute, the new cell in the Attribute column is white and blank. You can double-click in the cell to enter a label. This label is automatically set as a column header for the associated attribute in the attribute matrix.

To add an attribute:

1. Right click anywhere on the table.
2. Select the attribute type from the menu.
3. Give the attribute a name and description.
4. Repeat these steps to add several attributes to a test step.
5. To change the order of the attributes, right click on the attribute and select **Move Up** or **Move Down**.

Adding and removing test phases

To add a test phase to your test form:

1. Click **Manage Phase** on the test form toolbar.
2. In the "Manage Test Phase"s dialog box, double-click the entry field or start typing to search and then add a test phase to your test form.
3. Click **Update Phases** to save your changes.
4. To remove a test phase, click the X for each phase you'd like to remove.

IMPORTANT: Once testing has started in a test phase, the phase cannot be removed.

Setting up test phases

After you've added a test phase to your form, you can click the test phase tab to set up the test phase. At the top of each test phase, you can see details about the test phase in the **Test Form Details** section. These details may include assigned Tester, phase status, start and end dates, or other information as determined by your company.

Testing matrices

Before you can begin testing, you need to add a test matrix to your form to record your test results. Test matrices support uploading sample evidence files directly from PBC requests or through the **Attachments** panel.

Adding a test matrix

Completed PBC requests create testing matrices on your test form. You can also add a test matrix to your form for files collected outside of Wdesk. Evidence files can be opened and tested in the Evidence Viewer, with all results flowing back to the test matrix on the related test phase of the test form.

Creating a custom matrix

You can create a custom matrix on a test form without a population file. This provides flexibility when you need to tailor your test form. Each cell in the custom matrix is editable so that you can add identifying information for members of your population.

To add a custom matrix:

1. Click **Insert** in the toolbar and select **Custom Matrix**.
2. A matrix with a single row is then added to your test form.
3. Customize the matrix by right-clicking to insert or delete rows and columns as well as rename column headers.

Comments for attributes

To add a comment directly to a cell in an attribute matrix, select the cell and then add your comment in the comment panel to the right and then click **Post**.

Once you have posted the comment, a blue triangle will appear on the top-right corner of the cell in the attribute matrix to show there are comments associated with the cell.

Working with a test form

Managing PBC requests from the test form

The PBC Requests section contains a table summarizing all population, sample, and general requests associated with the test phase. This table displays the status of all requests related to the test phase along with details about the requests.

You can learn more about requesting files through the PBC workflow by reading Creating a Population Request in the Workiva Customer Success Center.

Clicking a request name opens the request in a new Wdesk tab. Files provided through approved requests or sample files that have been added can be accessed from **Attachments** in the right-hand panel.

Adding a spreadsheet to the test form

You can add a spreadsheet to supplement your testing matrix. Embedded Spreadsheets can be used to complement the information in the testing matrix. Embedded spreadsheets can be styled, formatted, and populated with all standard spreadsheet functionality - including formulas.

To insert a spreadsheet, click **Insert** and choose **Spreadsheet**.

For more information on adding a matrix or spreadsheet, refer to Evidence testing with the test form.

Adding footnotes

Some of your tests may require additional information in the form of footnotes.

To create footnotes:

1. Scroll down to the **Footnotes** section and click **Add Footnote**.
2. Enter your footnote and then click **Save** to finish creating the footnote.
3. Add the footnote to the attribute by right-clicking a testable attribute and choosing **Manage Footnotes**.
   Existing footnotes appear as options when you click the **Select Footnotes** field in the dialog box.
4. Choose an option and then click **Save Changes**.
5. If you want to create a new footnote from this dialog box, click on the **New Footnote** button in the lower left-hand corner.

Disassociating a footnote from an attribute

If there is a footnote already associated with an attribute and you need to remove the footnote from that attribute, right click on the attribute and choose **Manage Footnotes**. Then click the X for the footnote that appears in the **Select Footnotes** field.

Deleting footnotes

To delete a footnote, right-click the footnote in your Footnotes section and click **Delete**. You will need to confirm your decision to delete a footnote in the dialog box that appears.

Using time tracking for test forms

To keep track of the time needed to test a control, you can use the time tracking feature in Wdesk. The time tracking table is accessible from all test phases as well as on the overview tab of the test form. This means that new time entries are visible and can be managed in multiple places.

To use the time tracking feature:

1. Click **Add Time Entry** at the bottom of the test form.
   This opens up a panel on the right of the screen.
2. Enter the appropriate information for your New Time Entry.
3. Click **Include**.

Evidence testing with a test form

Once the test form has been set up as described in Preparing your test form and you (as the tester) have received the population and evidence files, you can begin testing.

To begin a phase of testing, click **Start Testing** on the toolbar. This will update the testing status and automatically create a new task for the assigned tester.

Importing a Population or Sample Evidence

Using Wdesk for PBC sample requests will generate testing matrices onto your test form. If you did not use Wdesk for your PBC workflow, you can still bring your population or sample selection into Wdesk. Open the test phase in which you'd like to add the files, then click **Insert** in the toolbar and choose **Matrix** from **File**. This will open the sample selection portal.

In the sample selection portal, click the blue Upload icon in the left-hand panel to choose the file you'd like to upload.

Once your file has been uploaded, you will need to choose sample rows to import. You can do this manually or choose random samples. For more information on choosing samples, see Selecting Samples in the Workiva Customer Success Center. Once you've chosen your samples, click **Import** in the toolbar to add your samples to the test form.

After creating an Attribute Testing matrix, highlight a sample in the right-hand panel and click the blue arrow icon to upload evidence files. You can drag and drop files in the right-hand panel into sample folders to re-use them for multiple samples if necessary.

Using the attribute testing matrix

Click the folder icon in a sample's row to open the related evidence in the viewer. You will then begin markup of your evidence. For more information on testing and marking up evidence in the viewer, see Markup in the Evidence Viewer in the Workiva Customer Success Center.

After you've tested your evidence, testing results will appear on the test form. You can also enter test results directly on the testing matrix by double-clicking the appropriate attribute cell. You can add additional rows or columns to the testing matrix by right-clicking in the matrix, choosing **Insert**, and choosing where to add the new column or row.

If you need to rename a column in the attribute matrix, you can do by right-clicking the column and choosing **Rename Column**. In the prompt that appears, enter the new name and click **Rename** to save the new name.

Adding conclusions

When you're ready to add conclusions, you can do so in the **Conclusions** section of the test form. Information required in your conclusions will be specific to your organization.

Sending for review

After all your samples have been tested and the results have been recorded in your attribute matrix, you can send your form for review by clicking **Send for Review** in the toolbar. This will send the test form to the first reviewer in the review plan for their approval and display the current assignee in place of the button. You can follow the status of the review from the Testing Dashboard.

If you need to modify your review plan, you can add a reviewer in the **Review Plan** section of your test form by clicking **Add Reviewer**. Enter the needed information and choose the order for the reviewers in the review plan. You can remove a reviewer by right-clicking the reviewer on the test form and choosing **Remove Test Phase Review Item**.

Managing test form attachments

The **Attachments** panel lists files submitted through the PBC workflow and is where you can upload population and evidence files if you did PBC outside of Wdesk. For more information on the PBC workflow, see Introduction to the PBC Workflow in the Workiva Customer Success Center.

Viewing the Attachment panel

When you are ready to view or modify attachments in a test phase, open the Attachments panel by clicking the paperclip icon in the vertical navigation bar on the right. In the Attachments panel, you can see all attachments associated with the selected testing phase. Attachments are not shared between test phases.

In the Attachments panel, you will find folders for the population and any testing matrices on your form. Each testing matrix folder will also contain separate folders for each sample and a single folder for any additional uploads that may support the matrix.

To upload a file to a folder in the **Attachments** panel:

1. Highlight a folder and click the blue circle icon with the white arrow to the right of the folder name.
2. Select a file in the dialog that appears and click **Open** to upload the file.
   Any file type can be uploaded as an attachment but only the following types can be opened in the evidence viewer:

Type	Formats
Text	.doc, .docx, .rtf, .txt
Spreadsheets	xls, .xlsx, .csv
Presentations	.ppt, .pptx
Images	.pdf, .png, .gif, .jpg
Mail files	.msg

   You can also drag files directly from your computer into a folder in the Attachments panel to upload files.

   Note: There is a file size limit of 500 MB for uploads. If you need to upload files larger than this, please contact your CSM.

Integrating with Microsoft Office 365

IMPORTANT: To integrate with Microsoft Office 365, you need to have a valid Office 365 license.

To integrate with Microsoft Office 365:

1. Open a test control form and select a testing phase.
2. Click on the attachment icon in the right panel. A list of attachments is displayed.
3. Click on the arrow for the dropdown menu next to the Excel file you want to attach.
4. Click **Open in Excel Online**.
   This opens the file in a new browser tab using Microsoft Excel Online.

   You can use the majority of the functionality available in Excel. If you make changes such as adding formulas, any updates you make to the file will automatically update in Wdesk.

   If there is a large file, it may take some time to transfer the updates. You can also open the Excel attachment in the Evidence Viewer by choosing **Open**.

Best Practice: Make your updates in the original Excel file before doing markup in the viewer to avoid any potential shifting of the markup.

To exit Excel Online, click X or use the **Exit** option in the left panel.

Managing Attachments

After you've uploaded evidence files, you can open them in the Evidence Viewer for markup. You can also download, replace, or delete the files using the options in the drop down menu to the right of the file name. You can also download all test form attachments in a .zip file using the **Export** option in the toolbar.

Note: Files uploaded into an Additional Uploads folder can be downloaded if you need to see the contents. This content cannot be opened in the Evidence Viewer. The Additional Uploads folder is often used for files that are applicable to multiple samples.

Renaming attachments

To rename an attachment:

1. Double-click on the file title.
2. Make your changes.
3. Press **Enter**.

Reviewing a test form

After you've finished testing the evidence, you will need to send the test form out for review to confirm that the testing process was completed appropriately.

Locating and opening test forms

When you are ready to begin the review process:

1. Click **Testing** in the left-hand navigation menu.
2. Click **Reviewer**. This displays the Reviewer Dashboard.
3. Click **To Review**. This displays a list of the test forms for you to review.
4. Click an item under **Task Title** to open the associated test form.

Quick edits for test forms

If you have a manager role and you are a reviewer for a test form, there are quick edits you can make without having to open a test form.

To make a quick edit on a test form:

1. Choose **Reviewer** in the testing dashboard.
2. Hover over the row for the test form.
3. Click **Edit** from the drop down menu on the far right.

   This will display the quick edit interface, allowing you to change the following elements:
   - Title
   - Due date
   - Assignee
   - Location
   - Description
4. Click the green check mark to confirm your edits.

Reviewing a test form and related evidence files

When reviewing test form contents, you will need to verify both evidence files and testing results. Test forms are reviewed by phases and the phase that was sent for review will automatically open.

To review a test form and associated evidence files:

1. Click on the evidence attachment icon to open the evidence viewer in a new Wdesk tab.
2. In the Evidence Viewer, review the evidence file with the completed markup.
3. For more information on markup, see Markup in the Evidence Viewer in the Workiva Customer Success Center.

Returning or approving a test form

You can click the **Returned** filter on the dashboard to see items that you've returned and require additional work.

If you discover issues while reviewing the test form,

1. Click **Return** to return the test form. A new task will automatically be created and assigned to the tester.

   Note: We recommend you leave comments on the test form to explain why it is being returned. Comments can be added to a specific phase or the test form as a whole.
2. If there were no problems with the test form, click **Approve** on the toolbar to complete your review task.
3. Choose an option from the dropdown menu in the **Finalize Approval** dialog. The status options are created within the test form based on your workflow.
4. After you've approved the form and there are no further issues, the task will be moved into Completed.
5. Click **Completed** to see a list of these tasks.

Exporting a test form

If you'd like to save a copy of your test form or its attachments to your computer, you can do so at any time using the **Export** feature. Click **Export** in the toolbar and choose XLSX to download the form or Attachments to download all test form attachments in a zip file. The file(s) will save to your download folder.

Deleting test forms

Data Admins can delete test forms, both individually and in bulk. When you have a test form open, you can delete the form by clicking **Delete** in the toolbar and confirming your choice.

To delete test forms in bulk

1. Open the **Testing** dashboard and choose **All Test Forms**.
2. From the test form list, select all the forms you want to delete.
3. Click the **Delete** icon in the toolbar and confirm the deletion in the dialog box.

Managing test form permissions

This is intended to help you understand the abilities associated with each level of permissions for SOX test forms and folders.

There are three levels of test form permissions:

- **Owners** can make edits to test forms and modify the permissions of others.
- **Editors** can make edits to test forms and the data in forms.
- **Viewers** can view test forms but not make changes.

If you are a Database Admin, you will have Owner-level access to everything by default. Only Database Admins or Owners can modify permissions.

You can update Test Form permissions in an account by applying permissions at the individual Test Form level or by applying permissions at the Test folder level.

Changing test form permissions

To apply or modify test form permissions:

1. Open a test form.
2. Click the **Permissions** icon.
3. In the Form Permissions dialog window, search for a user or browse the **Add Collaborators** section, then select the desired permission level for each person.
4. Repeat this process for each test form for which you wish to modify permissions.

   You can also give everyone in a group the same permission level by searching for the group name or scrolling to the bottom of the name list and modifying the permissions on the applicable group option. For more information on creating groups and adding users to them, see Managing Members and Groups in the Workiva Customer Success Center.

   If you need to grant permissions in bulk, you can use a **Test** folder to apply permissions to multiple test form at once.

Creating test folders

For Workspaces with a large number of test forms, users can apply permissions to a group of Test Forms by using Test folders.

To create a Test folder:

1. Select **All Test Forms** in the testing dashboard.
2. Click **Create**, then name your Test folder. You should see your newly created Test folder listed in alphabetical order above the **Test Form** list.
3. Select the Test Forms that you want to move into the Test folder.
4. After selecting your test forms, the Move icon will be enabled.
5. Click the drop down for **Move to** and select the destination, then click **Move** to finalize your change.

   Note: Test forms will inherit the permissions of the destination folder unless they have other permissions set before being moved.

Test folder permissions

To apply or modify permissions at the Test folder level:

1. Select a test folder and choose **Folder Permissions** from the drop down arrow **Actions** menu.
2. In the **Folder Permissions** dialog window, search for a user or browse the **Add Collaborators** section, then select the desired permission level for each person.
3. Repeat this process for each Test folder for which you wish to modify permissions.

   You can also give everyone in a group the same permission level by searching for the group name or scrolling to the bottom of the name list and modifying the permissions on the applicable group option.

Understanding report permissions and rules

Report permissions

Permissions allow you to control which reports groups or individuals can view and edit.

Note: You need to be a Database Administrator to edit report permissions.

To learn more about working with rules, refer to Working with report rules.

Working with report permissions

Keep the following points in mind when working with report permissions:

- Editing rules are set for each report individually.
- Users have "Viewer only" permissions until one or more editing rules have been assigned to them. This allows you to control who has edit access for data through the report. Refer to Working with editing rules for instructions on editing rules.
- Roles with "view only" permissions cannot make changes, but they can suggest a change. The suggestion has to be made in the form, not the report.
- Data and record views use report permissions and editing rules to set user access.

  Note: The data available to a user in data and record views may change based on the reports and rules applied to that user.
- You can apply multiple editing rules to both Users and Groups. A user or group is granted the maximum permissions based the rules set.

  Best Practice: Use groups instead of individuals whenever possible to help reduce permissions maintenance.

View report permissions

To view report permissions:

1. Click **Reports** in the left navigation menu.
2. Select the report you want permission information about.
3. Click **Permissions** on the toolbar to open the report permissions interface.
   This shows all the report permissions.

   Refer to Working with editing rules for instructions on editing rules.

Working with editing rules

You can use editing rules to determine who can edit the data associated with a particular report. You will need to be a Database Administrator to edit permissions.

Refer to Report permissions to learn more about report permissions.

View editing rules

To view the editing rules:

1. Click the editing rules icon in the right-hand menu. 
2. All existing editing rules are displayed in the expansion panel.
3. Select a rule to view its properties.

Add an editing rule

To add an editing rule:

1. Click **Permissions** in the toolbar to open the Permissions window.
2. Double-click the name and description fields to enter details about the new rule
3. Click **Add Editable Columns** to select which columns can be edited by users.
   You can customize a rule to allow users to create new data records. Users will only be able to edit existing data records unless they are specifically given permission to create new data records of that type.
4. To see a list of available data types, double-click in the **Select Data Type** and begin typing.
   Data types in the editable columns will always be black. They will be grey in the New Record Creation dropdown only if there are any non-optional edges in the report (all data types will be grey).
5. Click **Save** to create the new rule.

Change an editing rule

To change an editing rule:

1. Double-click on the name of the rule in the **Editing Rules** panel.
   This will bring you to an interface where you can edit the rule name and description.
2. Double-clicking either of these fields allows you to make your changes.

You can also change the editable columns for a rule. To remove a column from a rule, click the **X** to the left of the column name. If you want to add a column, you can search by typing and then add a column from the options that appear. After you have edited a rule, click **Save** at the bottom of the panel.

Delete an editing rule

To delete an editing rule:

1. Hover over the rule you want to delete.
2. Click the drop-down arrow at the right end of the row
3. Click **Delete**.

Apply an editing rule

After you've created an editing rule, you can then apply it to collaborators and groups. You can view these rules in the **Report Permissions - Editing Rules** tab.

To apply an editing rule:

1. Click **Permissions** in the toolbar to open the Permissions window.
2. In the Permissions window, find the collaborator or group you'd like to update
3. Double-click **+ Add Editing Rule** to display a selectable list of Editing Rules.

   Note: When you apply an editing rule to a group, members of that group inherit the rule. Inherited rules can't be removed from individual users and must be changed on the group.
4. Select the editing rule you want to apply.
5. To apply an additional rule, double-click **+ Add Editing Rule** again.
6. Once you have completed applying the Editing Rules, click **Back** in the Report Permissions window to return to your report.

Working with dashboards

Overview

Dashboards provide a centralized location to quickly and easily display relevant information in the Wdesk Database using charts and tables.

You can create custom dashboards to display your data to fit your needs. Dashboards allow you to aggregate and compare data, allowing you to transform data into information and communicate a story to a team or set of stakeholders.

Charts and tables are based on data that comes from existing reports. Configuring charts and tables in different ways provides new ways look at your data and gain insights. You can see the data being displayed in a specific chart and then drill down to see more details. You can also aggregate data as custom views which can be saved to use again later.

Remember that you have to set permissions to determine who has access to your dashboards.

Shell account dashboards lists all the default dashboards included with the shell account.

Creating a custom dashboard

To create a dashboard:

1. Click **Dashboards** in the left-hand navigation menu, then click **Create**.
2. Choose **Create Dashboard** from the drop-down menu options.
3. Give your Dashboard a unique name in the pop up dialog box, and click **OK.** You can now begin adding charts and tables to the dashboard.

Insert an existing chart or table in a dashboard

To insert an existing chart or table into your dashboard:

1. Click **Insert** on the toolbar.
2. In the **Insert from Library** panel, select either the **Charts** or **Tables** tab.
3. Click the drop-down and select the report with the relevant data.
4. Preview the available charts or tables to locate the one you want to insert.
5. Select the chart or table you want to insert and click **Insert**.

Insert a new chart or table in a dashboard

To insert a new chart or table into your dashboard:

1. Click **Insert** on the toolbar.
2. In the **Insert from Library** panel, select either the **Charts** or **Tables** tab.
3. Click the "Create New" link.
4. Click the drop-down and select the report with the relevant data.
5. Click **Select**.

Using dashboards to view data

Dashboards are highly useful for analysis and comparison of data as they allow you to display multiple charts and tables in a single, convenient location.

Using dashboard folders

Dashboards can be organized into a folder structure as needed to keep appropriate dashboards associated with each other.

Create a folder

To create a folder:

1. Click **Create** in the upper right corner.
2. Choose **Create Folder** from the drop-down menu.
3. Name the folder and click **Create**.

Move dashboards into folders

To move dashboards into a folder:

1. Click **Move**.
2. Select the desired folder from the drop down options.

   Note: Folders can also be created within folders if desired.

Viewing dashboards

To view your dashboards:

1. Click **Dashboards** in the left-hand navigation menu.

   If you cannot see Dashboards, contact your account admin to request access.
2. Choose a preferred dashboard from the dashboard list view.

   This will open that dashboard in a separate tab. If you open multiple dashboards, each one is opened in a separate tab, arranged at the top of your screen and you can toggle between multiple dashboards.

   To see two dashboards simultaneously, click and drag one tab until the blue outline appears and then drop the dashboard into place.

Organizing dashboard layout

Charts and tables can be resized horizontally on a dashboard to improve readability. To resize a chart or table, hover over the right-hand side until the outline turns blue. Click and drag the border to the desired size, then release.

Charts can be repositioned on your dashboard by clicking and dragging. Hover over the top portion of a chart or table until the four-way-arrow appears, then click and drag to the desired location.

Remove a chart or table from your dashboard

To remove a chart or table from your dashboard, hover over it, then click the X in the upper right-hand corner. You will need to confirm removal of the chart or table.

Note: Removing a chart or table from the dashboard does not delete it from your account.

Navigating to the Source Report

To navigate to the source report that makes up a chart or table, click the **View in Reports** icon in the upper right-hand corner of the chart or table on your dashboard.

The source report will open in a separate tab, offering Chart View, Table View and Data View options. You can view the numerical data in your chart by choosing Table View, or view the full data driving your chart using Data View.

Exporting charts from dashboards

To make charts available outside of Wdesk, you can export it as a PNG image. This allows you to share the data with others, to place the charts in a presentation, or print them. To export a chart as an image file, right-click it and select **Export as PNG**.

Using dashboard filters

You may want to filter your dashboard to analyze data for a location, process or other variable.

Adding dashboard filters

Applying filters to an entire dashboard adds the filter to all the individual charts and tables on the dashboard.

To apply a filter to an entire dashboard:

1. Click on the **Filter** icon in the toolbar.
2. Select a report column to use as the filter in the **Dashboard Filter** dialog box.
3. Choose the items to filter.
4. Click **Select** and then click **Apply**.

   If an item is removed from one chart but still remains in other charts on a dashboard, this indicates that the item is based on other reports. Click the **View in Reports** icon to determine the source report for the other charts.

Removing dashboard filters

To remove filters from a dashboard:

1. Click on the **Filter** icon in the toolbar.
2. Click the red X beside the filters that you want to remove.
3. Click **Apply**.

Drilling down in dashboards

Drilling down in a chart or table allows you to see the underlying information populating the chart or table and change the data displayed.

Viewing chart source data

In order to see the exact data that makes up a chart, click on a chart slice or bar. This opens the **Data View** in the right-hand panel. There you can see aggregated values for charts and tables without having to leave the dashboard.

If you choose a slice or bar that has more than one value, all of these will appear in the **Data View** panel. Click on an individual value to see all the data in the right-hand panel.

To see a full-screen table of the underlying data, double-click the slice or bar. This opens a full-screen table of the underlying data for that chart bar or slice. You'll see the drill down indicator at the top of your screen. Select a cell and right-click to choose View Details or click on the Data View panel icon open this panel.

From the full-screen drill down, you can:

- Filter columns
- Sort columns
- Add or remove columns
- Apply pivots and aggregations
- See the **Data View** and **History** panels for each cell
- Click **Back** to return to the dashboard.

Viewing table source data

To drill down in a table, right-click in a cell and choose **View Details**. This opens the Data View in the right-hand panel.

The Data View panel will reflect selected cells as you move through the table. If you have appropriate permissions, you will be able to edit data in the Data View panel. You may need to open sections in the Data View panel to see additional details.

Working with charts and tables

Charts and tables can be edited and customized in many ways. For more information on creating and editing, see the following sections.

- Bar Charts for Dashboards
- Pie Charts for Dashboards
- Tables for Dashboards

Bar charts for dashboards

You can create and edit bar charts that can be part of one or more dashboards. To edit the dashboard itself, refer to Using Dashboards to View Data.

Adding an existing bar chart to a dashboard

To add an existing bar chart to a dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Charts** tab in the **Insert from Library** dialog.

   Existing bar charts are identified by a bar chart icon to the left of the chart name.
2. Choose the chart you want to add from the list of charts.
   A preview of the chart appears in the dialog box.
3. Click **Insert** to add the chart to your dashboard.
   The chart will appear in the next available space in your dashboard.

Creating a new bar chart for a dashboard

To create a new bar chart for a dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Charts** tab in the **Insert from Library** dialog.
2. Click **Create New Chart**.
3. In the **Select Report Data** dialog box, select the report that will serve as the source for the chart from the drop-down, and click **Select**.
4. Select the bar chart type from the drop-down at the top of the **Edit Chart** panel on the right. This panel contains the features and options to help populate your chart.
5. Select the **Data** tab in the **Edit Chart** panel and choose whether to display the bars horizontally or vertically.
6. Click the field in the panel below the X and Y-axis labels to set the X and Y axes, and select the data type for each axis. The chart preview will automatically update.
7. You also have the option to display aggregated data in your bar chart. The default aggregation is Count, but you may also choose a different aggregation option. Hover over the formula (fx) sign on the right-hand side of the chosen axis and click the drop-down arrow that appears to view the aggregation options.

   You can learn more about these aggregations in Working with reports.
8. When you are finished modifying your chart, click **Save** in the upper left-hand corner.
9. Click **Save** and name your chart.
10. Click **Save & Insert** to add the chart to your Dashboard.

Group by Color for bar charts

The "Group By Color" feature allows you to segment your aggregated values by color. This feature enables you to provide further visual detail for the data you are communicating with your chart. Using this feature also displays the chart legend.

Create Stacked and Clustered bar charts

If you've assigned a Group By Color dimension in a bar chart, you can also choose whether to display your grouped bars in stacks or clusters. Stacked charts commonly display parts of a whole, and clustered charts are useful for analyzing trends between category groups. To use this, click the icon for a stacked or cluster bar chart in the **Edit Chart** panel.

Choose chart colors

On the **Format** tab, click on the colored square next to the category label to choose the bar color for that category.

Display Chart Legend and Axis titles

You can show or hide the **Chart Legend** and **Chart Axis** titles by toggling each switch.

Editing bar charts

To edit a bar chart in a dashboard:

1. Hover the mouse cursor over the chart and click the **View in Reports** icon that appears in the upper right.
2. Chart editing options are on the **Data** and **Format** tabs in the **Edit Chart** panel on the right side of the page. At the bottom left, you can switch between Chart View, Table View and Data View using the tabs.
3. After you have made your edits, click **Save** in the toolbar to update the chart on your dashboard.

Pie charts for dashboards

You can create and edit pie charts that can be part of one or more dashboards. To edit the dashboard itself, see Using dashboards to view data.

Adding an existing pie chart to a dashboard

To add an existing pie chart to the dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Charts** tab in the **Insert from Library** dialog. Existing bar charts are identified by a bar chart icon to the left of the chart name.
2. Choose the chart you want to add from the list of charts.
   A preview of the chart appears in the dialog box.
3. Click **Insert** to add the chart to your dashboard.
   The chart will appear in the next available space in your dashboard.

Creating a new pie chart for a dashboard

To create a new pie chart for a dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Charts** tab in the **Insert from Library** dialog.
2. Click **Create New Chart**.
3. In the **Select Report Data** dialog box, select the report that will serve as the source for the chart from the drop-down, and click **Select**.
4. Select the pie chart type from the drop-down at the top of the **Edit Chart** panel on the right. This panel contains the features and options to help populate your chart.
5. To set the **Slice Value**, click on the field below the Slice Value label and choose a value; these are the values you wish to count.
6. To change the data aggregation options for this chart, click the formula symbol (fx) on the **Slice Value** drop-down.
   You can learn more about these aggregations in Working with reports.
7. Choose a "Group By Color" dimension to segment your pie chart into slices. The **Format** tab offers additional chart customization options. The **Chart Legend** switch allows you to show or hide the legend. On the **Format** tab, click on the colored square next to the category label to choose the slice color for that category.
8. To add text labels to slices, click the link under **Slice Label** and choose from the available labels.
9. When you are finished modifying your chart, click **Save** in the upper left-hand corner.
10. Click **Save** and name your chart.
11. Click **Save & Insert** to add the chart to your Dashboard.

Editing a pie chart in a dashboard

To edit a pie chart in a dashboard:

1. Hover the mouse cursor over the chart and click the **View in Reports** icon that appears in the upper right.
2. Chart editing options are on the **Data** and **Format** tabs in the **Edit Chart** panel on the right side of the page. At the bottom left, you can switch between Chart View, Table View and Data View using the tabs.
3. After you have made your edits, click **Save** in the toolbar to update the chart on your dashboard.

Tables for dashboards

You can create and edit tables to be displayed on dashboards. If you'd like to add your table to a new dashboard, see Creating a custom dashboard.

Adding an existing table to a dashboard

To add an existing table to the dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Tables** tab in the **Insert from Library** dialog.
2. Choose the table you want to add from the list of tables.
   A preview of the table appears in the dialog box.
3. Click **Insert** to add the table to your dashboard.
   The table will appear in the next available space in your dashboard.

Creating and inserting a new table to a dashboard

To create a new table for a dashboard:

1. Open the dashboard you want to add the existing chart to, click **Insert** in the dashboard toolbar and select the **Tables** tab in the **Insert from Library** dialog.
2. Click **Create New Table**.
3. In the **Select Report Data** dialog box, select the report that will serve as the source for the chart from the drop-down, and click **Select**.
4. Click **Save** and name your chart.
5. To insert the table without editing, click **Save & Insert** to add the chart to your Dashboard. To edit the table, follow the instructions in "Editing a table in a dashboard".

Editing a table in a dashboard

To edit a table in a dashboard:

1. Hover the mouse cursor over the table and click the **View in Reports** icon that appears in the upper right corner.
2. Use the **Data Layout** panel that opens to the right of the table to make your changes.
   - To remove data by from a table, hover over the data type and clicking the X that appears. Removed data will still appear in the original report, but not in the table that you are creating.
   - To add data to your table, click **Click to Add Data** and select the data you want to appear in the table.

     Note: To see this button, you may need to scroll to the bottom of the Data Layout panel.

- You can also pivot the table by dragging report data into the gray field below the desired pivot type. To read more about the pivot feature, see Pivoting Data in the Workiva Customer Success Center.

3. Once your table is ready, click **Save** in the toolbar.

Dashboard permissions

This article will help you to learn how to take full advantage of dashboard permissions functionality. With dashboard permissions, you can make a dashboard as private or public as you would like for Wdesk users.

Permission levels and abilities

To set dashboard permissions, you must be a Database Administrator and/or an Owner of a dashboard. There are two ways to become an Owner:

- Create your own dashboard and you are the Owner by default.
- Be given Owner permissions by another Dashboard Owner or Database Administrator.

Each dashboard can have more than one Owner. All Owners have the ability to update permissions or delete the dashboard at anytime. Similar to other Wdesk document permissions, dashboards have three permissions levels:

Owner — Has full rights to the dashboard and can manage permissions.

Editor — Can make changes to the dashboard layout and content.

Viewer — Can view dashboard content but not make any changes.
These permission levels include the abilities outlined below:

	Permission Levels		
Abilities	**Owner**	**Editor**	**Viewer**
View Dashboard	Yes	Yes	Yes
Export Charts	Yes	Yes	Yes
View Permissions	Yes	Yes	Yes
Add/Remove Dashboard Content	Yes	Yes	No
Edit Dashboard Layout	Yes	Yes	No
Rename Dashboard	Yes	Yes	No
Delete Dashboard	Yes	No	No
Edit Dashboard Permissions	Yes	No	No

Accessing dashboard content

In order to see content on a dashboard, two conditions must be true. Users must have the correct license or role for dashboards. Secondarily, users must have permissions to view the source report for each chart or table on a dashboard.

If you get a message stating “Cannot be Displayed”, this means one of three things:

- You do not have permissions to view the content.
- The chart or table has been deleted.
- The report upon which the chart or table was based has been deleted.

Talk to the dashboard Owner to identify the relevant issue. To gain permissions to a chart or table source report, contact the Owner of that report and request the appropriate report permissions.

For users with Editor permissions to a report, you may make changes to your data on a dashboard as well. Simply use the Data View in the right panel after selecting a chart slice or table cell to make changes to the data.

Assigning and removing permissions

To assign or change permissions for a dashboard:

1. Open a dashboard for which you have Owner permissions
2. Select the Permission icon in the dashboard toolbar to display the Dashboard permissions editor.
3. Locate the person or group in your Wdesk account that you want to change the permissions for.
4. Select the radio button to the right of the name for the desired permission level.
5. Click **Apply Changes** to confirm.

To remove dashboard permissions for a person or group,

1. Hover the cursor over the group or person whose permissions you want to revoke.
2. Click the X located to the right of the user’s permission level.
3. Click **Apply Changes** to confirm.

Working with Certifications

Introduction to Certification

Certification allows you to establish standard and repeatable steps for an efficient, timely and transparent process. When you need to manage a signer or approval process, Wdesk Certification helps you get information and sign-off from key players.

Start your Certification by designing content with questions that address your need for information or feedback. Include desirable responses and exceptions. This letter and supplemental files are sent to individuals and groups in a predetermined workflow.

Approvers verify comments received and review exceptions. The status of the Certification process is tracked with the aid of a dashboard and reports. When your process is completed, you can reuse workflows and content for your next certification.

Creating a Certification process

Create a process that tracks signing progress and automates reminders, approval flow, and more. After the process is complete, roll the process forward to reuse components of the process.

Customizing your process

You can set due dates and reminder emails to automate the process and eliminate email chasing, then use templates to streamline workflow and establish consistency for recurring processes.

Generating content

Write questions indicating what should be verified and include information for improved clarity and accountability, then use exceptions to designate responses that should raise concern or provide immediate notification of problems. You can also attach files to provide easy reference to the document needing sign-off.

Tailor questions to specific individuals to get the information you need from each signer. Each letter sent is a certification that can be tracked, and real-time progress reports show the state of each certification.

Assigning recipients

You can designate individual signers or groups of signers as well as the order of sign-off to control the order in which signers see letters, with the option to the letter forward only after consensus has been reached.

You can add approvers to verify comments and exceptions for transparent resolution of issues raised with an archived audit trail.

Recipients can also sign certifications on their devices in Wdesk Mobile.

Tracking progress

A built-in audit trail of every signer and issue raised gives improved compliance and guaranteed issue resolution, ensuring that no question is left unanswered.

Each process has a dashboard summarizing certification activity, allowing you to keep tabs on multiple processes at once and easily check how each certification has progressed as well as who is currently responsible.

Reports can also be exported as evidence for easy inclusion in larger projects and reports.

Certification discovery questions

- Do you currently have a certification process for SOX?
- Do you use a template or is the certification letter specific to a certain individual or group?
- What is the nature of responses you're looking for through the certification? Examples: Yes/No, narrative response, email, other.
- What data is required for review as part of the certification process?
- What type of reporting on the certification process are you looking for? Examples: Response management, letter status
- Can you provide the questionnaire you have in a Word or Excel format?
- Who manages the certification process?
- How many certifiers and approvers do you have?
- When does the certification get sent out?

Certification setup overview

To set up your customer's certification process:

1. Create the letter template(s) that will be used in each process.
2. Add needed content — usually a title, directions, and purpose of letter statement.
3. Add formatting as needed.
4. Insert the questions, one-by-one, and create their answer selection (Yes, No, N/A, etc).
5. Flag the exceptions.
6. Add hyperlinks to narratives, flowcharts, and user-centric reports, if necessary.
7. Create the Process and set the due dates.
8. Add the letter template to the process.
9. Create the individual certifications for your signer(s) and approver(s).
10. Adjust settings depending on their workflow.

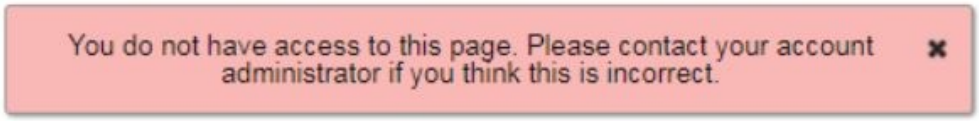
Licenses and roles in certifications

Manager — Can create a Certification Process and see all other Certification Processes.

All other Roles or if no Role is applied* — Can sign and approve a certification.

*In the future custom Roles will allow for specific certification abilities

Note: If a SOX Database customer is getting the following error when trying to access their Certification Processes, they likely need to have a role applied.



Certification processes

This section details how to create a new process, create certification letters and specify recipients, sending the letters and monitoring their progress,

Starting a new Certification process

To create a new process:

1. Select the **Processes** tab
2. Click **Start a New Process**.
3. In the first step of the "Start a New Process" wizard, enter a title for the process and its required dates.
4. Click **Next**.
5. Select the dates on which you want to automatically send email reminders to signers who have not yet signed their letters. You can also edit reminders later from the process **Letters** list.
6. Click **Finish**.

   If you want to edit the process:

   - You can send additional reminders manually, as well as customize the message that is sent in manual or automatically.
   - You can edit the contact for a process from the dashboard by clicking **Edit Process** and changing the contact.
   - You can also edit a contact for an individual letter when editing that letter, by clicking on the **Contact** field.

Creating Certification letters

After you've created a template, you can use that template to create a letter in your Certification process.

To create a letter in your Certification process:

1. Select the **Processes** tab.
2. Select the process you want to add a letter to.
3. Select the **Letters** tab in the process tracker.
4. Click **Add a Letter** to bring up a list of templates in your library.
   Refer to Creating and editing Certification letter templates for more information on letter templates.
5. Select the desired process
6. Enter details about the letter and set reminders if you wish.
7. Click **Create** to add the letter to your process.

   If you need to edit the title, content, or other details of a letter in a process prior to sending, you can do so by returning to the Letters tab in the process tracker and clicking the letter's name. This will bring you to the letter editor, where you can make your changes.

Adding recipients to Certification letters

To add recipients to a letter:

1. Select the **Processes** tab.
2. Select the process you want to modify.
3. Select the **Letters** tab.
4. Click the number representing the number of recipients in the **Recipients** column.
5. Click the down arrow on the **Create Certification** button.
   A drop-down menu displays the list of workflow options.

   The following list describes the commands on the Create Certification menu.

   - **Individual Signer:** This option allows you to add a recipient without creating a workflow. If you add multiple recipients this way, each is notified at the same time, and each can sign any time without following steps in a workflow.
   - **Ordered Signers:** This option creates a workflow with an individual signer assigned to each step in the workflow. When the letter is ready, the first person assigned to the letter signs the letter and routes it to the next person assigned, and so on. If any of the signers disagree with or change a previous signer's response, the letter is routed back to the person assigned to step 1.
   - **With Approver:** This option opens the Add Recipients dialog box with fields for adding both signers and approvers.

- **From Group:** This option allows you to include an existing group of users as the recipients of a letter.

  Note: Recipients can also be edited later if you need to add signer to or remove signers from the process.

Tip: You can reorder steps in the Add Recipients dialog by dragging them to the location you want.

Sending Certification letters and reminders

To distribute letters:

1. Select the **Processes** tab
2. Click the process name to open its dashboard.
3. Click **Letters**.
4. Click the letter you want to send.
5. Click on the number of recipients in the **Recipients** column.
   This opens the page for that letter's recipients, and indicates the status for each recipient.
6. To send letters as needed, do one of the following:
   - Click **Send** on the row of a recipient to send it to a recipient who has not yet signed the letter.
   - Click **Send All** to send it to all active unsigned recipients.
     If the letter has individual signers, all of them will receive the letter. If the letter has a workflow, the first signer will receive the letter.
7. The status changes to **Unsigned**.

   You can return to this same page to manually send reminders by clicking **Remind**. These reminders will be in addition to the reminders you set up when you first created this process.

   The title and other parameters of both letters and processes can be modified after letters are sent, but the letter contents cannot be changed. Recipients will receive notification emails alerting them to changes, including changes to letters, dates, or process recipients or approvers.

Monitoring Certification progress

If you are an approver of a letter, you receive email notification when a recipient signs the letter. The email indicates the status and displays any exceptions. It also provides a link that takes you to the Certification Tracker to manage the letter.

An administrator or approver can also log into **Certification** at any point in the process to view signing status for letters. Administrators can access tracking for all processes. Approvers can access tracking for the letters that are assigned to them.

To view the process status:

1. Open the Certification application.
2. Select the **Process** tab.
3. Click the name of the process you want to track.
4. In the dashboard, **Process Health** shows an overview of the signing status.
5. Click **View Tracker**, or click **Tracker** above the dashboard.

   The Tracker groups letters in three sections, with traffic-light colors that indicate the status. Green indicates signed and approved letters, yellow indicates letters that are signed but pending approval, and red indicates letters that are unsigned. Approvers and admins can click on a user to see their signing details and the letter that was sent to the signer.

Connecting Certifications with your narratives, flowcharts, and database data

The most common ways certifications are tied to the database, flowcharts, or narratives is through hyperlinks in the letter. The database hyperlink typically navigates a user to a user-centric report that shows them any items that they own. For example, if a control owner needs to review and certify on their controls, they will receive a certification letter with a hyperlink that will take them to a user-centric report in the database that provides details on their controls. A hyperlink to a narrative or flowchart may also be used for the individuals who need to review controls or for those individuals who need to review the narrative or flowchart and make any updates based on process updates.

Managing Certification groups

Groups in the Certification application allow administrators to organize signers, which simplifies tasks like distributing certifications and user management.

Creating a Certification group

To create a Certification group:

1. Select the **Members** tab.
2. Choose the **Groups** sub-tab.
3. Click **Add a group**, This opens the group creation window.
4. Name the group and click **Save Changes**.
   This creates an empty group, and opens the **Groups** screen.
5. Click on the group name to open the member list. You now can begin adding members to the new group.

Adding members to a Certification group

To add members to a Certification group:

1. Select the **Members** tab.
2. Choose the **Groups** sub-tab.
3. Click **Add members**. This displays a list of users on the account. You can use the **Filter** field to narrow down your choices.
4. Select the users to add.
5. Click **Add members**.

   Note: Members added to a group will not receive letters sent to the group prior to their addition. You will need to send an individual certification to users added after a letter has been sent to the group.

Removing members from a Certification group

To remove an individual member from a Certification group:

1. Select the **Members** tab.
2. Choose the **Groups** sub-tab.
3. Click **Remove** next to the member's name.

To remove one or more members from a group:

1. Mark the checkbox next to the members you'd like to remove
2. Click **Remove Members**.

Note: Removing members from a group does not remove them from any letters already assigned to that group.

Renaming a Certification group

To rename a Certification group:

1. Select the **Members** tab.
2. Choose the **Groups** sub-tab.
3. Click **Rename** next to the group whose name you want to change.

Creating and editing Certification letter templates

Before adding letters to your process, you will need to create a template. Templates are the generic basis from which letters are made. You can compose and save templates in the library, where they can be accessed for viewing or modification later.

Creating and formatting new templates

1. Select the **Templates** tab to display the existing templates, and then
2. Click **Create Template**.
3. Enter the template name in the **Title** field.
4. Build the body of the letter stored in the template.

5. Click **Add Text** to add a textbox to the template.
6. Click **Add Question** to create a question that requires a response from your signers. You will be able to provide the question as well as the available responses.
7. Click **Attach File** to include a file with the template.
   Remember that any letter using this template will include any files you attach to the template, so you may wish to attach files to the letter instead.
8. Add questions.
   - If choosing that response will require review, select **Exception**.
   - If you want the question to have more than two responses, click the plus sign to add another.

   When you are done making changes, click **Save Changes**.
9. Edit the letter.
   - To change a question, select the question that you would like to change and click the Edit (pencil) icon.
   - To remove a question, select it and click the Delete (X) icon.
10. When all questions are completed, click **Create Template**.
    The template is saved into your library. You can repeat these steps to create additional templates.

Viewing and editing existing templates

To view a template as it will appear to a recipient:

1. Click the **Templates** tab to display the library.
2. Click **Preview** to the right of the template you wish to view.

To create a new template based on an existing template:

1. Click **Copy** to the right of the template name.
2. Enter a name for the new template in the dialog
3. Click **Copy**.
4. Edit the new template as needed.

To edit an existing template's content:

1. Click the name of the template you want to edit.
2. Make your changes.
3. Save the file.

Using file attachments in Certification

If you need to include supporting information with a certification process, you can upload a file. These files are stored in the attachments library and can be attached to letter templates.

Attachments library

To upload a file to the Attachments library:

1. Select the **Attachments** tab.
2. Click **Upload File**.

   On the **Attachments** page, the column with the lock icon in the heading indicates whether each file requires users to sign in before viewing.
3. Click **Choose File**.
4. Locate and select the file you want to upload.
5. Enter a title for the attachment.
6. Specify whether the recipients must sign in to Certification to view the file
7. Click **Upload**.

Attaching a file

To attach a file:

1. Select the Templates tab.
2. Click the name of the template to which you want to add an attachment.
3. Click **Attach a File** in the Edit Template page.
4. Click **Select** for the file in the list of available attachments that you wish to attach. If the file you need isn't in the library yet, click **Upload a File** to add it.

Updating attachments

Keep the following in mind when updating attachments:

- If you upload an updated version of a file that is already attached, Certification creates a new attachment in the library.
- If the older version was attached to any templates and you want the new one to take its place, you will need to replace the older version with the new one on each template.
- If you want to keep an older version of a document while adding a new one, you can name the versions differently to differentiate between the two.

Editing attachment properties

To make a change to an attachment's properties:

1. Select the **Attachments** tab.
2. In the **Actions** column, click **Edit** for the item you want to change.
3. In the Edit Attachment dialog, change the title or the sign-in requirement as desired.

   Note: Changing the title does not affect the filename of the attachment.

Deleting attachments

You can also delete attachments from the attachments library. This automatically removes the attachment from all templates and processes they are associated with.

To delete an attachment:

1. Open the **Attachments** tab.
2. Click **Delete** for the item you want to delete in the **Actions** column.
   You will be asked to confirm your choice.

Using File Attachments as a Signer

Signers will automatically be sent a notification email with a link to access the letter you have been asked to sign. If additional supporting documentation is required when signing a certification, clicking the **Add Support** link in the email gives the recipient the option to upload files from their computer and insert comments.

Adding recipients to Certification letters

This section describes how to build a workflow, the workflow options available to add recipients, and how to check the status of a workflow in progress.

Workflow overview

Workflows let you build a step-by-step sequence for signers and approvers. A signer must agree with the previous signers' answers and comments, and then add his or her own before the letter can be sent to the next step. If a signer changes a previous signer's response, the letter goes back to the first step, requiring all earlier signers to sign again.

Each step in a workflow can involve multiple signers who are required to reach a consensus before the letter can be routed to the next step.

One or more "approval" steps can be included after the "signer" steps.

IMPORTANT: If an approver does not approve the letter, the letter is sent back to the signers, and every step must be repeated.

Workflow options and descriptions

A workflow can have multiple approvers and multiple signers.

To add a signer or approver, open the **Create Certification** drop-down menu and choose one of the four workflow options: Individual Signer, Ordered Signer, With Approver or From Group. Each of these options is described below.

Individual Signer — Choose this when you do not need to create a workflow and want to add one recipient. If you add multiple recipients this way, each is notified at the same time, and each can sign any time without following steps in a workflow.

Ordered Signer — Choose this when the workflow has an individual signer assigned to one step in the workflow. When the letter is ready, the person assigned to step 1 signs the letter and the letter is automatically routed to the person assigned to step 2, and so on.

With Approver — Choose this when you need to add an Add Recipients dialog box. This has fields for adding both signers and approvers.

From a Group — Choose this when you want to include an existing group of users as the recipients of a letter. This adds these recipients independently of each other, not requiring a consensus. To use this, at least one group must exist.

You can add ordered signers, multiple signers, and approvers to the workflow regardless of which option you select. As you build the workflow in the Add Recipients dialog box, notes in the dialog box remind you of when each recipient will sign or approve.

Using the Workiva mobile app

An authorized user can open and sign a letter using Workiva's mobile app. When their response is needed, they will receive an instant notification. They can then complete questions and tap to sign digitally through the app. To learn more, see Mobile in the Workiva Customer Success Center.

Checking workflow progress

You can view the progress of a workflow on the **Recipients** page.

Click the caret icon next to a recipient's name to expand the steps assigned to them after the first step. The workflow and all of the signers involved in it appear under the name of the signer(s) responsible for completing the first step in the workflow.

Adding initial recipients and building a workflow

To add a recipient when none are assigned:

1. Select a process.
2. Click **Letters** to display the letters page.
3. Under **Recipients**, click the number for the number of recipients.
4. Click the down arrow on the **Create Certification** button to see a drop-down menu displaying workflow options.

Modifying the Recipients list

If you need to add, reorganize, or remove signers or approvers, you can modify the workflow steps that follow the current active step.

IMPORTANT: Once a letter is sent, nothing in the current step or prior to it can be changed.

1. On the **Recipients** page, click **More** in the **Actions** column for the workflow in which you want to add or remove signers or approvers.

   TIP: Click the caret to expand the workflow for a recipient if you are not sure which is the right one.

1. From the drop-down menu, choose one of the following:
   - **Add More Signers** to add, remove, or reorder signers.
   - **Assign Approver(s)** to modify the approver list.
2. Follow the same steps as when you add recipients to a new workflow.
3. Click **Save Changes** when you are done.

Marking user as having signed a document

If a user can't sign their certification but has responded without exceptions (for example, using email outside of Certification), you can manually mark that the user has signed using the **Mark as Signed** option in the **More** menu of the **Letters** list.

Skipping a user in a workflow

If a user in a workflow is unavailable or can't sign, they can be skipped in the workflow.

To skip a signer:

1. Open the **Recipients** list.
2. Click the caret icon next to the recipient's name to expand the workflow.
3. Click **Skip** to the right of the step.

Approving Certification letters

In the Certification dashboard, you can use the Letter Tracker to

- See the status of a letter
- Remind recipients of unsigned letters
- Approve or reject letters having exceptions

Viewing letters in the Letter Tracker

Approvers will get an email notification when a recipient signs the letter with a comment or exception. The email displays any comments or exceptions, and gives a link to manage the letter.

Permissions

- Administrators and Approvers can both log in to Certification to see signing status.
- Administrators can access tracking for all processes.
- Approvers can access tracking for the letters that are assigned to them.

To view the status of a letter:

1. In **Certification**, select the **Process** tab.
2. Click the name of the process you want to track. In the dashboard, Process Health shows an overview of the signing status.
3. Click **View Tracker** from **Process Health**, or click the **Tracker** button above the dashboard. The Tracker groups letters in three sections with colors to indicate the status.
    - Green indicates signed and approved letters.
    - Yellow indicates that a letter is signed but pending approval due to comments or exceptions.
    - Red indicates unsigned letters.

Reminding recipients

In the Tracker, click **Remind** next to a signer's name to send that recipient a reminder, or use **Remind All** to send a reminder to all recipients. You can also send reminders from the **Recipients** page for a process.

Handling exceptions in Certification

In the Tracker, pending letters are in the yellow column. These letters are signed but include comments or exceptions that require review by an administrator or approver. *Comments* from an approver or administrator are indicated by a comment balloon. *Exceptions* are indicated by an alert icon.

A yellow background indicates that the reviewer has answered the questions without any exceptions, but that they have added additional explanations on a question that flags it for review. A red background indicates that the reviewer has answered one or more questions with exceptions.

Reviewing and acting on pending letters

To review and take action on pending letters:

1. Click the recipient's name, the alert icon, or the comment bubble that appears next to that person's name.
2. This opens a summary of that letter. In the letter summary, you can do one of the following:
    - Accept or reject a single comment or exception.
    - Return or approve the entire signing.
    - Add your own note.
    - Click **Print** to generate a PDF file of the letter as the signer completed it.
3. Close the window to return to the Tracker when you're done.

    Note: Signer comments, approver replies, and exceptions will appear on the Exception report. Notes on a signing will not.

Removing letter recipients

To remove a recipient from a letter:

1. Select the **Processes** tab.
2. Click **Letters**.
3. Click on the number of recipients.
   This opens the Signers/Approvers page.
4. Click **More** next to the recipient you want to remove.
5. Click **Delete**.

Categorizing Certifications using tags

Certification allows you to add tags to certifications. These tags allow you to organize and add identifying information to your certifications.

Adding category tags

You can create tags by setting up different categories, and specifying a color for each tag to help differentiate them.

To add tags to a category:

1. Select the **Certification** tab.
2. Click on the **Tags** sub-tab.
3. Click **Add Category**.
4. In the **Tag Category** box, type the name of the category you wish to create and select a display color.
5. Click **Add Tag Category**.

Removing category tags

To remove tags from the **Tags** sub-tab:

1. Select the **Certification** tab.
2. Select the **Tags** sub-tab.
3. Locate and select the Tag you want to delete.
4. Under **Actions**, click **Delete**.

Adding category tags to letters

To add tags to a letter:

1. Select the **Processes** tab.
2. Select the process you wish to tag.
3. Click **Letters**.
4. For the letter you want to tag, click the number in the **Recipients** column.
5. Under the Actions column, click **More**.
6. Select **Add Tags** from the drop-down menu.
7. Add tags by typing the category, adding a colon to distinguish the tag, then typing your tag value.

   Certification creates the tag, and uses the color you selected for the category. You can add multiple tags by adding a comma after a tag, and if you've used a tag previously, Certification will attempt to autofill the tag name.
8. When you are done adding tags, click **Update**.

Removing a category from a letter

To remove a tag from a letter:

1. Select the **Certifications** tab.
2. Click on the letter recipients.
3. Click on the **More** dropdown.
4. Click **Edit tags**.
5. Remove the tag.
6. Save the letter.

Viewing and using tags

Once you've created tags, you can view and use them.

- From the Tracker, the tags you added appear under the recipient. If you hover your mouse over them, the category will appear as a tooltip for each tag.
- On the **Letters** screen, click **More** and select **Recipients** to use the **Filter Certifications** box to look for tags. Type in the name of your tag, and all letters using that tag are displayed. If you click **Reports**, tags appear to the right.
- If you **Export** your Report, the tags appear in the report.

Generating Certification reports

Certification reports allow you to view a letter or signer's status and the number of letters with exceptions. Reports can be reviewed both during a Certification process and after it has been completed.

Viewing certification reports

To view reports:

1. Select the **Processes** tab.
2. Click on the name of your current process to display the dashboard.
3. Click **Reports**.

   Certification provides two report types: Letters Reports and Exceptions Reports.

   Note: By default the **Letters Report** page is active. To switch views, click the **Responses Report** tab in the upper-right area of the page.

Letters Report

In the Letters Report, you can filter letters by status (unsent, unsigned, unapproved, or approved) or by signer or approver name.

To fine-tune the Letters Report, select the filters you want to apply to the view in the **Reports** settings available on the left.

The Letters Report information includes whether there have been any alerts or exceptions. For example, whether a signer responded with an unexpected answer or comment. You can investigate those further by switching to the **Exceptions Report** page.

Responses Report

The Responses Report gives you all unexpected answers and comments as well as the person who signed. You can use this for recordkeeping while a process is in progress, and then to verify that all exceptions were resolved after the process is completed.

As with the Letters Report, the Reports settings on the left enable you to filter report data by exception, alert, approval status, and by signer and approver.

Exporting reports

You can export a report as a file to have a permanent record of the status of the process. To generate a file, do any of the following:

- Click **Export All Letters** in the upper right corner to generate a printable PDF of all signings for archiving purposes.
- Click **Export PDF** in the lower right corner for the Letters or Exceptions Report which is preset columns.
- Click **Export CSV** in the lower right corner to format the report data in a comma-delimited, tabbed format. This is a neutral format that is readable by many spreadsheet programs and other programs. It works well if you have a large report that you want to view in tabular format.

Copying or deleting Certification processes

If you want to reuse a process, you can either roll forward that process in Certification or copy an existing process from an existing workspace to a new workspace instead of creating and formatting a new one. This is essentially the same as you would copy certifications within a workspace.

Copying a Certification process

This procedure requires that you be logged in using an account with Workspace Admin, Account Admin, or Support Admin permissions.

To copy a process:

1. Select the account containing the process you want to copy.
2. Add `?debug` to the end of the URL and refresh the browser tab.
3. Click **Certifications** in the left navigation area.
   This opens a new tab, with the **Processes** sub-tab selected.
4. Locate the process you want to copy.
5. Click **Copy** for that process.
6. In the "Start a New Process" dialog complete the following:
   a. Enter the new **Process Title**.
   b. Select the **Period End** date.
   c. Select the **Process Due** date.
   d. Specify the designated **Contact** email address.
   e. If you want to copy the signers as well, mark the **Include Signers** checkbox.

   IMPORTANT: If a user is listed on a certification, but is not in the destination account, the certification will still be copied and you will then need to manually clean up the certification.
7. Click **Next**.
8. (Optional) Set automated reminders by scrolling through the calendar and picking dates.
9. Click **Next**.

   Note: This only changes the reminders for new letters created in this process and not for the original letters.
10. The new process is created.
    At the end of the copying process, a notification dialog displays the process outcome. If the copy is successful, close the dialog and follow the directions under "Updating the new Process". If the copy fails, use the information in the dialog to determine why it failed.

Updating the new process

Once you have copied the process to its new location, you will need to do some cleanup. This is covered in the following subsections.

Correcting Signers and Approvers

When you move a certification that points to a user in the original workspace but they are not in the new workspace, you will see an error that the Signer/Approver is not in the account. To fix these errors, click the **More** dropdown for each error and then either replace the signer/approver or remove them completely.

Updating copied reminders

Once you have copied the Process and Certifications, you will need to assign new reminder dates, as the copied Process and Certifications will contain the original reminder dates.

Deleting a Certification process

If for any reason you need to delete a completed or in-progress process, an account administrator may do so.

To delete a process:

1. Select the account containing the process you want to copy.
2. Add `?debug` to the end of the URL and refresh the browser tab.
3. Click **Certifications** in the left navigation area.
   This opens a new tab, with the **Processes** tab selected.
4. Locate the process you want to delete.
5. Click the **More** option for that process.
6. Select **Delete** and confirm your choice.

IMPORTANT: Deleting a process cannot be undone.

Certifications FAQ

Here are the questions most frequently asked about Certification:

Question: How do I set email reminders?

Answer: Refer to "Sending Certification letters and reminders".

Question: How do I attach files to Certifications?

Answer: Refer to Using file attachments in Certification.

Question: Can Certifications be sent to groups or do individuals need to be added manually?

Answer: Refer to Managing Certification groups and Adding recipients to Certification letters.

Question: How do I set permissioning around Certifications?

Answer: Refer to Approving Certification letters.

For more information, see Certifications in the Workiva Customer Success Center.

Certification Best Practices

The following are what we have identified as best practices with regard to Certification.

- Build underlying user-centric reports, narratives, and flowcharts before starting the certification process.
- Have customer approve template before you set up any templates; this reduces re-work
- Walk customer through the build when you are done and have them sign off on the process built.