Release Notes

DriveWorks 23 SP0

Supported versions

SOLIDWORKS
SOLIDWORKS 2023, 2024 and 2025 are fully supported.

Microsoft Windows
Microsoft Windows 10 and 11 are fully supported.

Contents

DriveWorks 23 information

Introduction

Innovation and continuous improvement underpin our team's approach to software development.

DriveWorks 23 includes many exciting new features and enhancements. We take our commitment to quality incredibly seriously, and with the [changes to DriveWorks Pro Server](#), even more testing and validation has been carried out for this release. This has involved upgrading to DriveWorks 23 on our internal systems for an extended period – the very production systems we use to operate our business, from expenses management to sales order processing. Over 6,000 specifications have now been run through DriveWorks 23 on those systems, in addition to our usual testing. We are looking forward to seeing you take advantage of the new software, and we're keen to hear your feedback on the new features.

Design automation for SOLIDWORKS

DriveWorks 23 SP0 fully supports **SOLIDWORKS 2025** in addition to SOLIDWORKS 2024 and SOLIDWORKS 2023.

TinyMCE control

Further to the release of the TinyMCE control in DriveWorks 22 we have subsequently found a Tooltip would not be positioned as expected when activated from the text editor frame.

As such the Tooltip Text and Tooltip Duration properties have been removed from the TinyMCE control.

Tooltips will no longer appear on TinyMCE controls upgraded from earlier versions.

Integration Theme – create or edit specifications from a URL string

The function used to create or edit a Specification from a URL string has been changed to:

/command?

This more accurately reflects the functionality of the feature.

See [Command Function](#) for more information.

Microsoft Windows 10 end of support

Microsoft will end support for Windows 10 on October 14, 2025. This means that after that date, Windows 10 will no longer receive free software updates, including security patches and other bug fixes.

We recommend upgrading to the latest supported operating system.

The article [Info: Microsoft Windows Support](#) gives more information and links to:

- Microsoft Lifecycle Policy
- Continued use of Windows versions not on mainstream support

Previous release information

Please also review the following information which is still relevant for this release.

- [DriveWorks 22 SP0 Information](#)
- [DriveWorks 22 SP0.1 Information](#)
- [DriveWorks 22 SP1 Information](#)
- [DriveWorks 22 SP2 Information](#)
- [DriveWorks 22 SP2.1 Information](#)

What's new in DriveWorks 23

New features and functionality added in DriveWorks 23 SP0.

Scalability

Continual development to support the management of an enterprise-wide deployment.

DriveWorks Pro Server

DriveWorks Pro Server has been re-designed as a browser-based utility.

All existing functionality has been maintained but this now gives additional benefits, including:

- Utilizing the latest future-proof technology
- Enhanced security features
- Streamlined modern UI
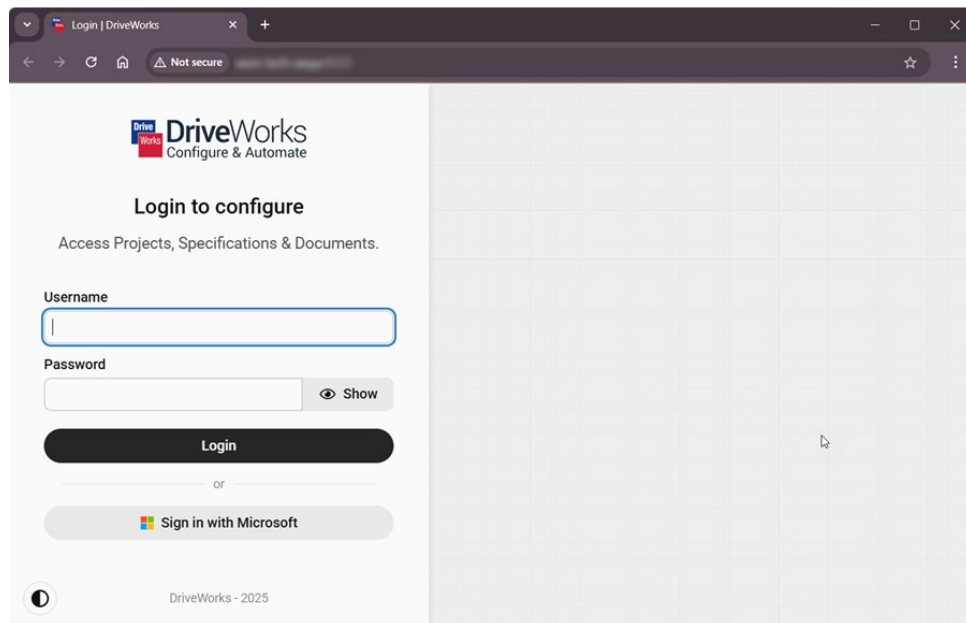- Access Pro Server Web Application Dashboard remotely.
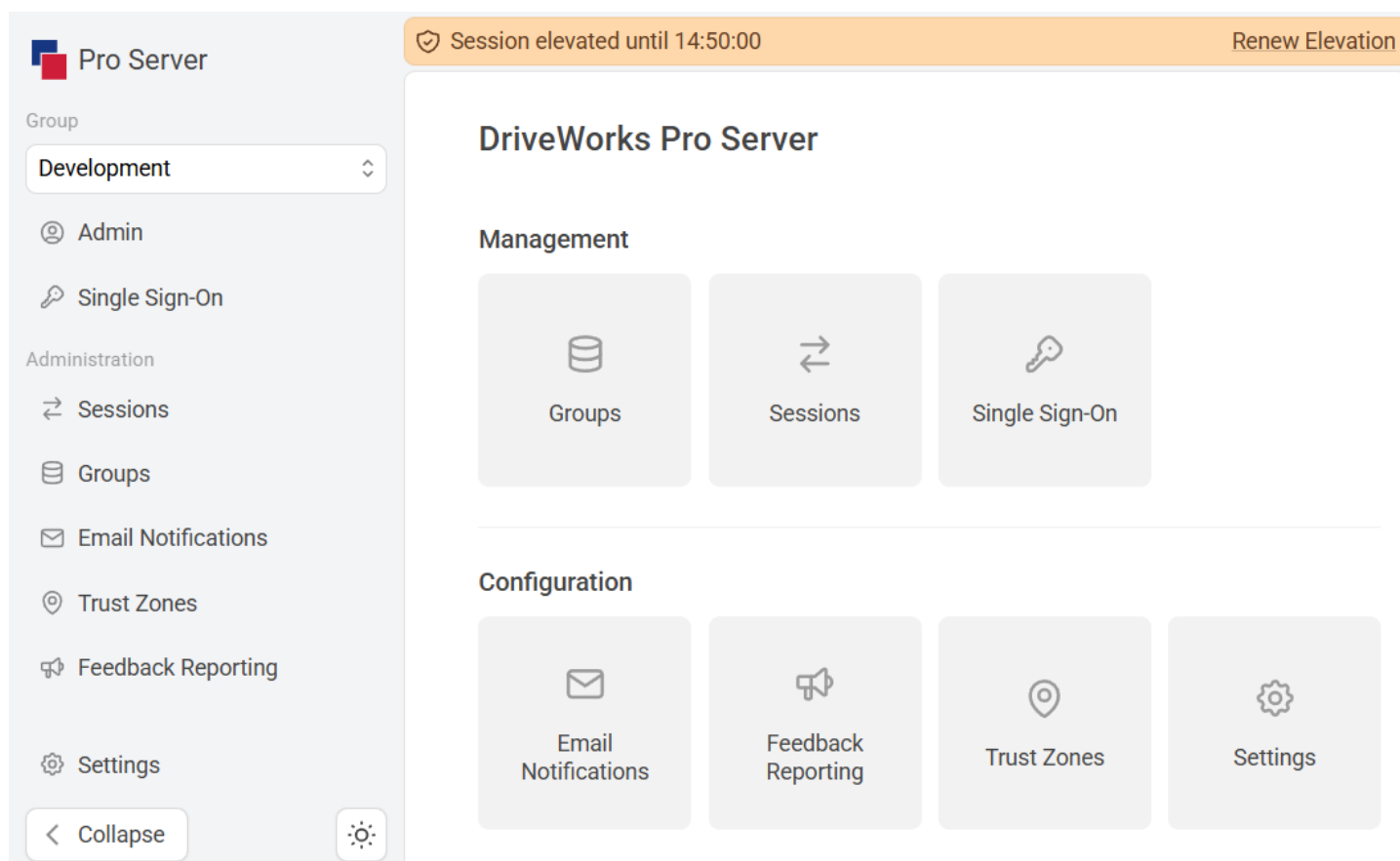
Learn more

Integration Theme quick start

Instantly launch the Integration Theme site in a browser.

The Integration Theme no longer requires modifying the DriveWorksConfigUser.xml file or modifying the served static files to see the site in a browser.
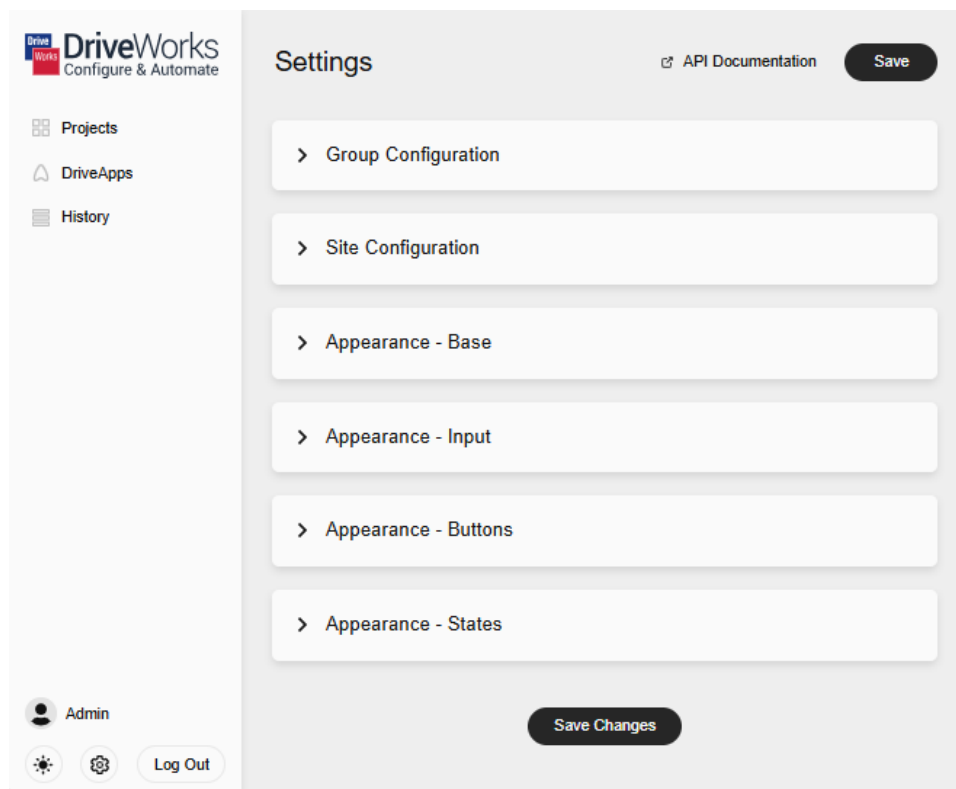

[Learn more](#)

Integration Theme – Live UI

Integration Theme site settings are administered directly in the browser.

Quickly and easily set up, customize, and use the Integration Theme.

[Learn more](#)

Email authentication

DriveWorks applications that send emails allow Exchange Online (Microsoft 365) configuration.

Exchange Online supports sending emails via OAuth 2.0, Microsoft's recommended authentication method after the deprecation of basic authentication.

This allows secure, token-based authentication without exposing user credentials.

Email Authentication	Exchange Online ∨
Tenant ID	
Client ID	
Client Secret	

Exchange Online Email Authentication is supported in the following modules:

- [DriveWorks Autopilot](#) for emails sent from a specification.
- [DriveWorks Pro Server](#) for emails sent when any connected DriveWorks Autopilot agent disconnects unexpectedly.
- [DriveWorks Live](#) for emails sent when the maximum number of licenses in use has been exceeded.

DriveWorks License Management

The License Manager includes the following enhancements to make returning and repairing licenses more efficient.

Fixed licenses

- Return and Repair directly from the Fixed Licenses tab of DriveWorks License Management. [Learn more](#).
- Return multiple Fixed Licenses together. [Learn more](#).
- Repair Selected Fixed Licenses that have become untrusted. [Learn more](#).
- Repair All Fixed Licenses that have become untrusted. [Learn more](#).

Network licenses

- Repair All Network Licenses that have become untrusted. [Learn more](#).

DriveWorks Live licenses

- Return and Repair directly from the DriveWorks Live tab of DriveWorks License Management. [Learn more](#).

DriveWorks Live Insights License

The **DriveWorks Live Insights** license enables session tracking to monitor the usage of DriveWorks Live licenses.

This allows peaks in sessions to be identified to make informed decisions on where additional Live licenses could be beneficial.

This license type is available to work alongside a DriveWorks Live Centralized License.
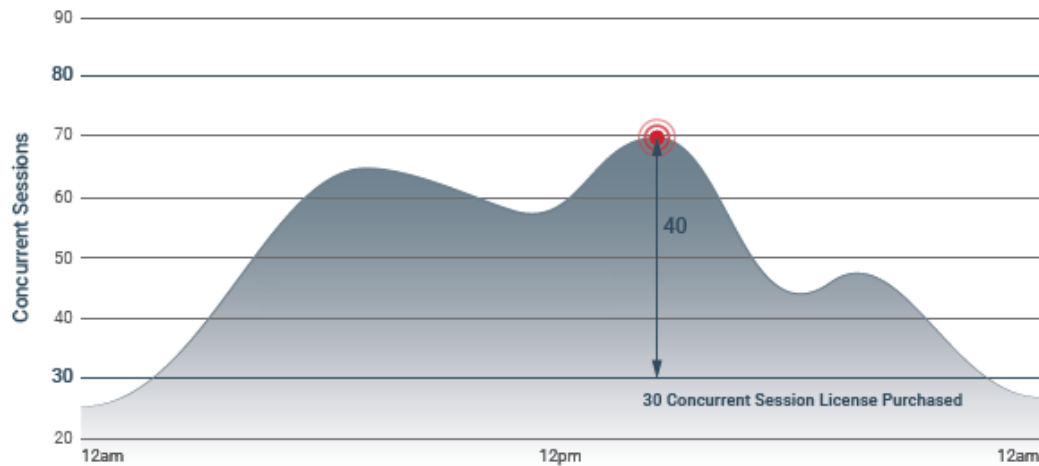
[Learn more](#)

DriveWorks 3D

Improvements to make interactive 3D visualizations, for the desktop and web, realistic and performant

Undo and redo

Any changes made, while in the 3D Document editor can be reverted and reapplied using the undo and redo command buttons or shortcut keys.

[DriveWorks 3D File – Command Bar](#)

Tone Mapping

The default value of the Environment's Tone Mapping Type property is ACES for newly created DriveWorks 3D Documents.

[Environment Settings – Color Adjustments](#)

Rule revision history

DriveWorks 3D Documents will store previous versions of a rule, once a rule has been applied and then subsequently changed.

[Rules Builder Revisions](#)

Spot Light Entity

The default value of the Spot Light entity's Falloff Start Angle is now 115, and 138 for the Falloff End Angle when a new Spot Light entity is added.

[Spot Light Entity](#)

Specification Test Mode Support

Fully analyze every rule in a DriveWorks 3D Document that is displayed in a 3D Preview Control.

[Specification Explorer Test Mode](#)

PBR Advanced Render Property

[PBR Advanced](#) introduces a clearcoat layer to the PBR material.

Clearcoat enables the reproduction of a clear coating (such as varnish or water) on materials where light is reflected before being transmitted to the base layer.

Optionally apply advanced refraction properties to control how much light is refracted and how the refraction effect splits the red, green and blue light.

Example of DriveWorks 3D with Clearcoat

No clearcoat

New primitive

The [Ruby Primitive](#) quickly and easily adds geometry with irregular surfaces that can be used to test out:

- Appearances
- Textures
- Lighting
- Animations

It can also act as a reference model to add a sense of scale to your DriveWorks 3D scene.

New Functions

Additional functionality to enhance your implementation.

Higher Order Functions

Higher Order Functions allow data (in a table or array) to be transformed or filtered by a DWLambda.

The following higher order functions are included in this release:

TableMap Applies a Lambda Function across a provided table or array to transform the data into a new array. For example:

- An existing table could have symbols applied to each value in a column. Use TableMap to remove the symbol so the value can be used in an equation.

- An existing table column could have values that require converting to a different unit.

- TableFilterByFunction Filters a table or array based on a single column using the provided Lambda Function. For example:

An existing table may require rows filtering based on a match in the given column but still exclude certain rows.

TableFilterByRowFunction Filters a table or array using the provided Lambda Function applied to each row. For example:

An existing table may require filtering based on a comparison of values in two cells of each row.

TableRemoveColumn

Returns a new array with the given column removed.

TableRemoveColumn

PolygonCreateArc

Use with the Fill and Hole Path parameters of the 3D Extrusion entity to create a new arc polygon.

See PolygonCreateArc for more information.

PolygonCreateUniformThickLine

Use with the Fill and Hole Path parameters of the 3D Extrusion entity to create a new uniform thick line polygon.

See PolygonCreateUniformThickLine for more information.

New and Enhanced Form Control Properties

Additional styling to give form controls a completely modern look.

Picture Size Mode

The [Picture Size Mode](#) property can have the value **Cover** applied.

Cover allows an image to cover the available limits of the controls while maintaining its aspect ratio and without displaying any whitespace.
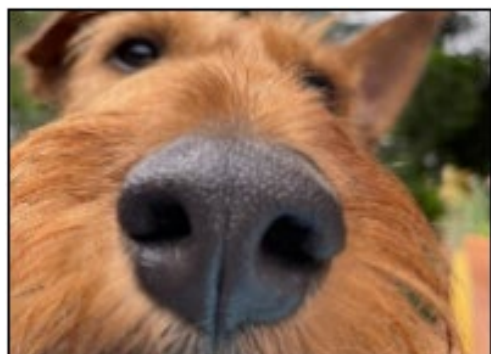
The Picture Size Mode property is available on the following controls when a Picture is applied:

- [Check Box](#)
- [Check Box Group](#)
- [Clipboard Button](#)
- [Dialog Button](#)
- [Hyperlink](#)
- [Macro Button](#)
- [Option Button](#)
- [Option Group](#)
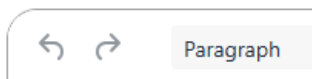- [Picture Box](#)
- [Slider](#)
- [Upload Control](#)

TinyMCE Control

The following properties can now be controlled for the TinyMCE Control:

Allow Printing – allows the Print tool to be enabled or disabled on the control.

Border Radius – specifies the border radius of the control.

Label Control
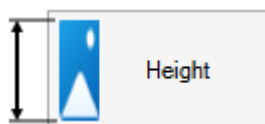
Drive the border style of a Label control with a rule.

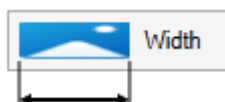The Border Style property, on a Label control, can now be made dynamic.

Button Controls

The following properties have been added to the Clipboard Button, Dialog Button, Macro Button and Upload Control.

Picture Height Specifies the height of the picture container inside the button.

Picture Width Specifies the width of the picture container inside the button.

Picture Position Specifies the position of the picture container inside the button, relative to the text. Applies when Picture Style is set to TextAndPicture.
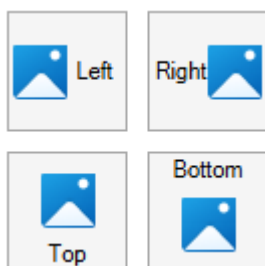
Picture Border Radius Specifies the border radius of the picture container inside the button. Also available for Hover and Pressed events.
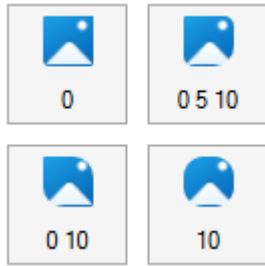
Button Padding Specifies the padding around the picture and/or text on the button control.
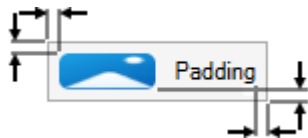
Button Spacing Specifies the spacing between the button's text and picture.
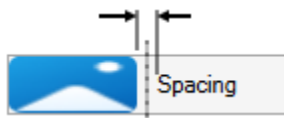
Slider Control – Track

The following properties can now be controlled for the track of the Slider control:

Track Size Specifies the size of the slider's track.

Inset Track Specifies whether the Track is inset from the edge of the Control.

Track Color (Fill) Specifies the color of the filled part of the slider's track.

Track Fill Start Value Specifies the value on the Slider track where the Track Fill starts from.

Track Border color Specifies the color of the Slider track border.
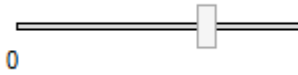
Track Border Width Specifies the width of the Slider track border.

Slider Control – Thumb

The following properties can now be controlled for the thumb of the Slider control:

Thumb Height Specifies the height of the Slider's Thumb.

Thumb Width Specifies the width of the Slider's Thumb.

Thumb Image Size Mode Controls how the image is sized within the Slider's Thumb.

Thumb Padding Specifies the padding of the Slider's Thumb when a picture is used for the Thumb Image.

Thumb Margin Specifies the margin of the Thumb from the edge of the Control. This can be used to make the Thumb appear inside of the Track.

Usability & UI

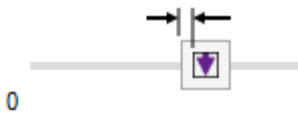Focused visual updates and enhancements add further functionality across DriveWorks.

Word Document

Bookmarks placed in the header or footer of **.docx (Microsoft Word Documents)** can be driven.

Previously only .doc file types were supported.
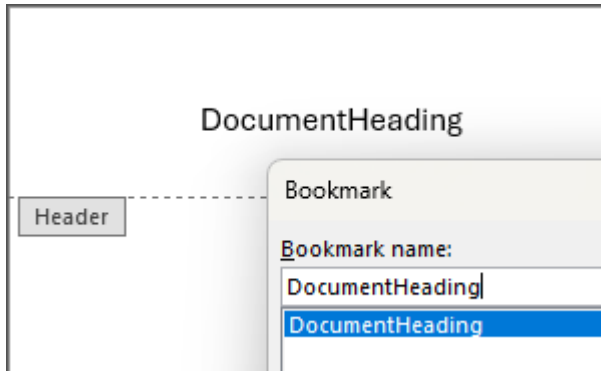
[How to create a bookmark in word](#)

All Table Functions are in the Table Category

TableDistinctCount, TableFromList and TableSearch functions were previously listed in the General category (in the Functions list).

These have been moved to the Table category.
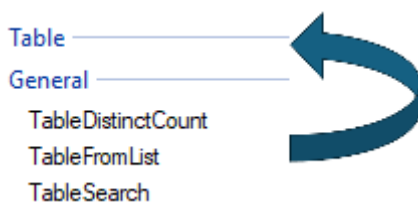
[Go to the Function List](#)

Rules Builder Settings

The color of the **Caret** (the blinking vertical line that indicates the cursor position within the rule editor window) can be changed from the Rules Builder Settings.

[Change the Caret Color](#)

SOLIDWORKS PDM Professional

New and enhanced functions and tasks to integrate with PDM.

New Function

[PDMGetFolderTemplates](#) - Returns a list of Folder Templates in the current vault accessible by the PDM user.

Enhanced Functions

[PDMBasicSearch](#)

- **Refresh parameter** added to allow re-calculation during the running of a Specification.

[PDMFileSearch](#)

- **Folder parameter** added to allow the search to run from the specified folder and not the entire vault.

- **Refresh parameter** added to allow re-calculation during the running of a Specification.

New Specification Tasks

- [PDMPro: Get Multiple Serial Numbers](#) - Generates a table containing multiple new serial numbers.

- [PDMPro: Get Latest Files](#) - Gets the latest version of multiple files from inside the vault.

- [PDMPro: Get Specific File Version](#) - Gets the specific file version from inside the vault.

Enhanced Specification Tasks

[PDMPro: Update File Data Card](#)

- **Configuration or Sheet Name Property** added to allow the update to be applied to a Configuration or Sheet specific data card, rather than a file data card.

- **Check in Comment Property** added will drive the given value into the comment on the data card when checking the file in.

[PDMPro: Create Folder](#)

- **Template Name Property** added to select a PDM Folder Template to be applied to the new folder.

New Generation Tasks

Common PDM tasks can now run on Assemblies, Parts or Drawings as [Generation Tasks](#).

- [PDMPro: Get Latest File](#) - Gets the latest version of a file from the Vault.

- [PDMPro: Get Latest Files](#) - Will get the latest version of multiple files from the Vault.

- [PDMPro: Get Latest Files in Folder](#) - Gets the latest version of each file in a folder from the Vault.

- [PDMPro: Get Specific File Version](#) - Will get the specific version of a file from the Vault.
- [PDMPro: CheckIn File into Vault](#) - Checks the named file into the vault.
- [PDMPro: Update Folder Data Card](#) - Populates a folders data card.
- [PDMPro: CheckIn Folder into Vault](#) - Checks a folder's contents into the vault.
- [PDMPro: Check Out File](#) - Will check the named file out of the vault.
- [PDMPro: Check Out Folder Content](#) - Checks a folder's contents out from the vault.
- [PDMPro: Delete File](#) - Will delete a file out of the vault.
- [PDMPro: Create Folder](#) - Creates a new folder in the vault.
- [PDMPro: Update File Data Card](#) - Populates a file data card.

CPQ & Dashboard DriveApps

Enhancing out-of-the-box functionality and speeding up implementation time for CPQ and Dashboard DriveApps.

Interactive Breadcrumbs

Breadcrumbs displayed in the header bar are interactive.

Quickly navigate to any previous page from any sub-menu.

On devices with smaller resolutions, where the available space cannot display the entire breadcrumb trail, click the ellipses to display a dialog with the breadcrumbs that have been removed due to the overflow.
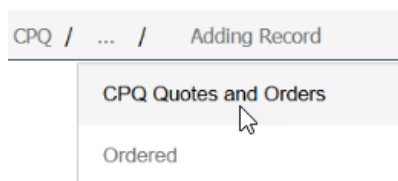
Interactive breadcrumbs are instantly available (no additional setup required after upgrading) for the **Dashboard** and **CPQ** DriveApps.

Run Macro on a List

A macro can be run when a dashboard tile is selected that has been configured to display a list.

This applies to a Custom List (created using the [List Data Provider](#) project template) and applied to a tile.

This allows the list data to dynamically change by:

- Pre-applying a filter to the list based on a rule.

- Applying a user-specific ordering to the data in the list based on a rule.
- And optionally apply a macro argument to allow the same macro to be used, but with differing outcomes depending on where it is run from.

This feature is available for lists created in the CPQ or Dashboard DriveApps.

Show Icons on Collapsed Menu
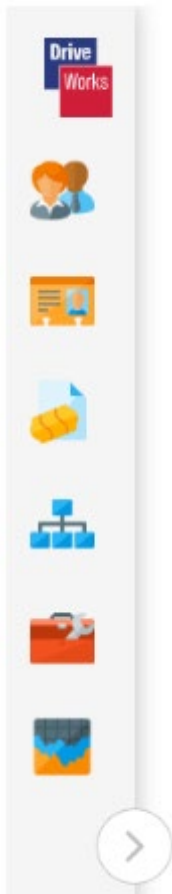
Dashboards displayed as a menu allow Icons to remain in view when the menu is in a collapsed state but hidden when in an expanded state.

Apply this setting from the Appearance > Menu item in the DriveApp Settings

- For the CPQ DriveApp
- For the Dashboard DriveApp

Dashboard Tiles – Appearance Settings

Control the size and colors used on tiles in the appearance settings.

New and improved settings added to the tile designer are:

- **Ratio -** Control the aspect ratio of the tiles by selecting from:
  - Square
  - Portrait
  - Landscape

The Tile Layout Preview displays the tile in the selected Ratio.

- **Size -** Choose the size of a tile by selecting from:
  - Small
  - Medium
  - Large

The height and width of each selection depends on the chosen Ratio. The height and width is displayed, in pixels, on the Tile Layout Preview.

- **Hover Border Color -** Choose a hexadecimal color value to apply to the tiles border when it is hovered over.
- **Left Border -** Toggle to display a bar on the left-hand border of a tile.
- **Left Border Color -** Choose a hexadecimal color value to apply to the left border.

Apply these settings from the Appearance > Dashboard Tiles item in the DriveApp Settings

- For the [CPQ DriveApp](#)
- For the [Dashboard DriveApp](#)

Tile Layout Preview – Appearance Settings

Control the position of text and icons used on tiles in the appearance settings.

New settings added for the Tile Layout Preview are:

- **Title -** Toggle to choose if the tile title is to be displayed. The title placeholder will be shown or hidden on the Tile Layout Preview.
- **Description -** Toggle to choose if the tile description is to be displayed. The description placeholder will be shown or hidden on the Tile Layout Preview.
- **Icon -** Toggle to choose if the tile icon is to be displayed. The icon placeholder will be shown or hidden on the Tile Layout Preview.
- **Tile Layout Preview -** The Preview of the tile layout shows the actual size and aspect ratio selected for the tile. The position of each text block and icon can be controlled using the **Move Up** and **Move Down** arrows to the left-hand side of the preview. The vertical alignment of the text within the title and description placeholders can be adjusted by:

1. Select the placeholder required to have its vertical justification changed in the preview window.
2. Select the required justification arrow on the left-hand side of the preview.

Apply these settings from the Appearance > Dashboard Tiles item in the DriveApp Settings
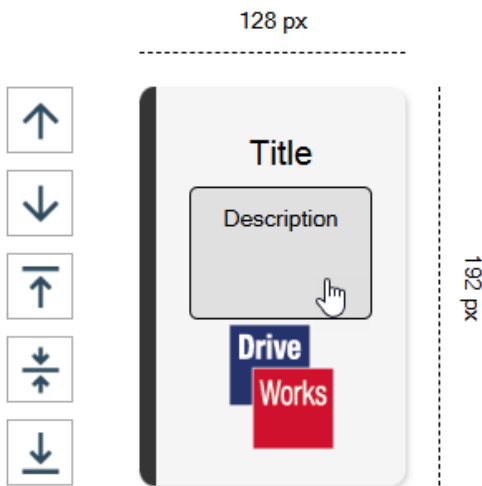
- For the CPQ DriveApp
- For the Dashboard DriveApp

CPQ DriveApp

Enhancing out-of-the-box functionality and speeding up implementation time for the DriveWorks CPQ DriveApp.

Instantly Open Copied Quotes

Copying a quote will instantly open the item for editing.

Previously a copied quote required selecting from the Orders list before it could be opened for editing.

The quote will not be created if cancelled immediately after copying.
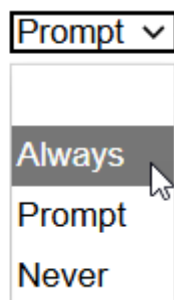
Open Copied Quotes is instantly available with no additional setup required after upgrading.

Update Pricing on Copy Order

Decide how pricing updates are applied when an Order is copied.

Orders copied from old items will include the original pricing, choose how pricing updates are applied in the CPQ settings.

See Copy Order Settings for more information.

Copy Order State Reset

Copying an order will automatically reset the workflow state.

Previously a quote would be in the same state it was copied from, requiring a transition to be triggered to reset the workflow.

See Workflow Settings for more information.

Improved Linked Item Edit Experience

The CPQ Custom Item form template has been enhanced to allow linked custom items to be opened for editing inside its parent, once it has been added to a quote.

The topic How To: Upgrade Linked Items details how this can be implemented for existing custom items.

Confirmation Dialog when Clicking Interactive Breadcrumb

The CPQ Custom Item form template has been enhanced to display a confirmation dialog when an interactive breadcrumb is clicked.

The topic How To: Add a breadcrumb confirmation dialog to a Custom Item details how this can be implemented for existing custom items.

The dialog will only show if the custom item being edited has any unsaved changes.
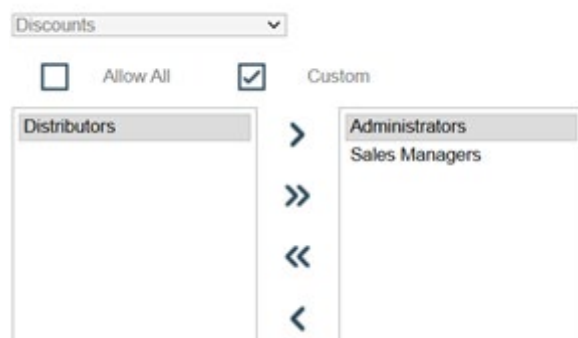
Additional Quote/Order Permissions

Permissions on which Teams can see the different elements of how an item is priced can now be set.

Select permissions for the following elements:

- Discounts
- Quote Pricing
- Freight
- Tax

Order Permissions

Discounts

☐ Allow All   ☑ Custom

Distributors   >   Administrators
                     Sales Managers
                »
                «
                <

See Order Permissions for more information.

Fixed in DriveWorks 23

Thanks to your feedback, and our own extensive use of the software, we've made fixes to the following DriveWorks Pro modules and tools:

All Modules

DTI	Description
45808	The Login button does not have focus when using SSO.
49589, 49210, 48771	Re-opening a report that hasn't been closed will cause the application to crash.
49857	The password field does not obfuscate the entry when configuring proxies in the licensing wizard.

DriveWorks Administrator

DTI	Description
19154	Renaming a form control that has a MyName function applied to a dynamic property can cause the application to crash in certain circumstances.
28406	Rule Revisions associated to Specification Properties are duplicated each time a specification is transitioned.
31665	Checking the SOLIDWORKS PDM Plugin option to "Store settings in the group", without an open group causes the application to crash.
32283	Using the mouse wheel to scroll through Screen Space Reflection Quality values causes the application to crash.
34153	The Defer property for the Skip To Form, Run Macro and Run Macro in a Loop Specification Tasks is redundant.
35219	The SOLIDWORKS PDM Task "Update Folder Card" will fail if any controls on the card do not have default values applied.
47759	The Table Visualizer (Rules Builder Drill Down tab) fails to render columns if the header cell contains certain characters or whitespace.
48067	SOLIDWORKS PDM Tasks applied in the Specification Flow cause various errors and no reporting when the PDM Plugin is disabled.
48353	The value field does not have focus when a new constant is created.

48468	Resizing the height of a form control when its width is governed by a rule that uses the height displays undesirable behavior.
48827	Tooltip properties have been removed from the TinyMCE control to avoid positioning inconsistencies when activated from some elements.
48925	DriveWorks 3D anti-aliasing does not work correctly when set to Balanced or Quality in some circumstances.
48930	A Macro applied to a Click Macro entity does not execute if an earlier node had Click Macro entity with a macro that does not exist. Processing of all further macros stopped.
48941	The Specification Explorer does not disable operations that have become invalid as a result of multi selecting a combination of valid and invalid Specifications.
48945	The volume and centroid output values produced by the Calculate Estimated Volume Data task are incorrect.
49061	DriveWorks 3D scenes can take a long time to update.
49182	Numbers represented in scientific notation with positive exponents are not supported in the Measurement Text Box control.
49187	Spin buttons numeric formatting does not respect scientific notation for values larger than 1E15 or smaller than 1E-15.
49218	The static value of the Sprite entity Pixels Per Meter property can be changed when a rule value has been applied in the 3D Document editor.
49257, 48367	Certain special characters within table headers cause the application to crash when opened in the table visualizer (Rules Builder Drill Down tab).
49271	Selected options in the Export Drive3D File dialog (3D Document editor) are not correctly enabled or disabled until the dialog is closed and re-opened.
49337	Exiting Specification Test Mode does not dispose memory until the application is closed.
49467	Glass render properties are not honored when the Camera Enable Orthographic property of a 3D Preview control is set to true.
49481, 49576	3D Preview controls do not update when their host form changes and the new form contains a 3D Preview control with the same name.
49651	Setting a 3D preview control's Camera Enable Orthographic property to true causes the scene to be constantly re-rendered.

49660	Opening a locked Project from the PDM vault gives a misleading message.
49678	The About page contains a typo for INCORS GmbH License and does not list all collections used.
49679	The About page includes the invalid entry "Copyright [2021] [Google] " and the Apache license for Google's material design icons is incorrect.
49917	When using SOLIDWORKS PDM, assembly files that fail to generate are not checked in to the vault.
49947	Running a second Specification, that contains a 3D Preview, from the SOLIDWORKS task pane causes SOLIDWORKS to crash.
50079	Deselecting an item, when "View as combined" has been selected, does not remove the item from the rule list in the 3D Document editor.
50087	Selecting a decal after editing an appearance does not update the preview in the 3D Document editor.
50181	Memory issues could cause the Create Preview Image task to fail, and its ability to recover if they do occur is limited.
50182	Rules applied to properties of a child node do not get copied when the child is selected with its parent in a 3D Document.
50192	The Specification Host and Frame control do not expose certain elements for external styling.
50332	The Create Preview Image task fails when creating images with differing widths/heights in certain circumstances.

DriveWorks Autopilot

DTI	Description
41030	Ordering the Emails list by 'Last Processed' results in alphanumeric sorting.
47117	The SOLIDWORKS PDM Plugin setting "Overwrite Drawings" cause drawings to be skipped if rege machine.

DriveWorks Live

DTI	Description
48650	Certain client to server interactions do not reset expiry timers for group, specification or sessions.
48772	Hyphens used in Group Alias names cause console errors in the Integration Theme in some circumstances.
48825	An invalid javascript structure sent to the TinyMCE image upload endpoint (Integration Theme) can cause the application to crash.
48932	The Integration Themes variable changed functionality (registerVariableValueChangedDelegate) no longer causes specifications to become stuck during Specification Transitions.
48959	The Integration Theme setting "AllowPublicFormResources" is not honored when authenticating resource requests in cookieless environments.
49008	The Integration Themes Login endpoint provides a false-positive success result in the console for scenarios where no credentials are provided or available from server-side configuration.
49080	An invalid specification name rule or an invalid specification flow does not surface the error in the browser or console for the Integration Theme.
49116	Increasing the Contrast of 3D Documents causes some colors to appear black on iOS 18.
49229	Invoking a transition or operation using a POST request in the Integration Theme will cause the application to crash if an incorrect name is given.
49319	An intermittent crash within the Integration Theme could occur due to unsafe thread access to shared objects.
49338	In-flight form messages will no longer cause the Web Theme to crash when users close or refresh their browser window.
49371	The Integration Theme Corporate Website example does not honor localized date formats.
49375, 48866	The loading overlay can hide prematurely in the Web Theme in certain circumstances.

49470	Valid macros run in the Integration Theme client SDK examples present an error message in the console.
49541	It is possible for entity tags, in the Integration Theme, to return inconsistent values when resources are accessed via different API endpoints which affects performance.
49731	The Integration Theme Client SDK does not correctly encode data which may contain unsafe URL characters.
49754	An unsuccessful request to join a websocket session is not handled correctly in the Integration Theme.
49774	The Integration Theme client SDK now dispatches various "Updated" events directly from the Specification, making the events dispatched on Specification.specificationFormElement redundant for new implementations.
49809	Inbound HTTP requests make unnecessary directory and file checks in the Integration Theme.
49844	KeepAlive messages interfere with Specification Macro Consistency causing a perpetual loading overlay in certain circumstances in the Integration Theme.
49875, 48313, 48061, 47750, 46687, 45444, 42070, 41260, 41194, 40531	An incorrectly defined path attribute declared for an individualGroupAlias or an incorrectly defined groupName attribute declared for a sharedGroupAlias in the user .xml file of the Integration Theme will cause the application to crash.
49938	Minimum and Maximum values displayed on the Slider control do not honor a browsers globalization/culture settings.
50105	Multiple Specification actions could potentially be processed concurrently by different users in the Integration Theme.
50171	An Integration Theme client which has connected using LongPolling and abruptly disconnects whilst in-flight messages are present will cause the Integration Theme to crash.