

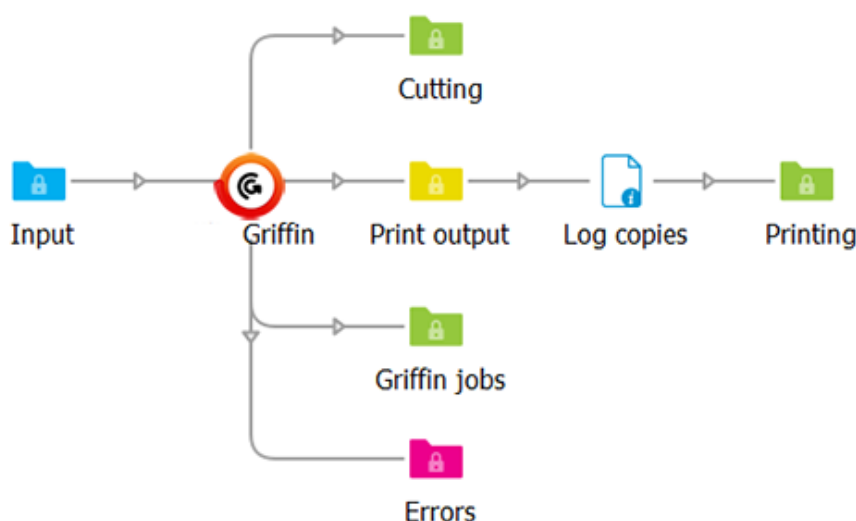
Griffin



Griffin Auto packs many features into a single solution, giving you an automation toolbox for stepping up, image tracing, tiling, nesting, and ganging your artwork onto sheets or rolls and generating production ready output for your printers and cutters.

The Griffin app gives you full access to the power of Griffin Auto. This app contains over 300 properties. Detailed descriptions of all properties are found below. Each property also has detailed tooltips in Switch. We recommend utilizing them as you work with the app.

Almost all properties can be set using variables and script expressions to utilize the rich set of data available in Switch like job properties, folder hierarchies, metadata fields, and database entries.



Compatibility

Switch 17 update 1 and higher

Compatibility third-party application

This app relies on the presence of Griffin Auto 2.2 or higher. Griffin Auto must be installed on the same computer running Switch and a valid license is required.

Input files

The Griffin app collects artwork files from a single input connection until certain trigger event(s) occur at which point the files are processed. The app supports PDF and PDF-based AI formats as well as TIFF, PNG, BMP, JPG, and GIF image formats.


The input handling logic is similar to the built-in "Assemble job" flow element. You can wait for N or more files to enter the input folder or wait N minutes after the first file has arrived. In Advanced

mode you can also write a custom trigger condition, and control which artwork files are to be included together during processing by using a trigger identifier. More details about triggers are found in Advanced Mode, described in depth below.

Connections

You can create as many **outgoing connections** as you like. For each connection you can choose whether to generate output files or to send along input files using the **Data** property.

Data property - Chosen value	Description
Output files	
When selecting "Output files" for the Data property you are presented with options to output for printing, output for cutting, output job file. One or more of these options must be selected within a single connection to produce output.	
Output for printing	Generates imposed PDF(s) of the layouts generated by Griffin. When enabled, there are properties to control whether to produce a single multi-page PDF or separate PDFs for each layout and whether to create a separate PDF page for each copy required. Other options include whether to remove tool paths from the original artwork and whether to use PDF 1.6 UserUnit for layouts above 200 inches in width or height.
Output for cutting	Generates vector PDF, DXF, or Zund Cut Center (ZCC) cutting output containing all tool paths in the imposed layout(s). For PDF output, you can choose whether to generate a single cutting file containing all generated layouts, or individual PDF files for each layout. Other options include which marks to include in output and how to map tool types to colors and layer names.
Output job file	When enabled, a Griffin job file, GFN, will be created. This allows you to open the job in the Griffin desktop application to do further adjustments to layouts if needed. This option is also useful for archiving the generated layouts for future reprint or revision update.
XML dataset name	The app will attach an external XML dataset to each file created on the given output files connection. This XML data contains information about how many layout copies are required to produce, which artwork files were placed on each layout, and other statistics about each layout like sheet usage. The XML dataset name property allows you to customize the name of this dataset.
Input files	
When selecting "Input files" for the Data property you can select which scenario you want to send input files through this connection via the Move property.	
Move	Options: <ul style="list-style-type: none"> • On Error: This is the most common use case. When this option is selected, only input files that could not be placed in layouts are sent to this connection. The most common scenario is artwork files that are too big to

Data property - Chosen value	Description
	<p>fit on the board or roll. If no "On error" connection has been setup, these input files are sent to the Problem jobs folder. In either scenario, the error is logged in Messages.</p> <ul style="list-style-type: none"> • On success: Only input files that were successfully placed in layouts will be sent to this connection. • Always: All input files, regardless of success or failure, will be sent to this connection. Note that error situations are still logged as errors in Messages. <p> Note: If there are no matching input files connections for a given input file, it will be deleted.</p>

Properties detailed info (high-level properties)

Properties	Description
Job ID	ID of the job
Units	Indicates which units are used.
Install location	Location
License type	<p>Options are:</p> <ul style="list-style-type: none"> • License key (key) • Cloud License (User ID & Password)
Mode	<p>With so much functionally packed into the app, there are over 220 flow element properties total. To make it easy to get started with the app, there are two modes to choose from:</p> <ul style="list-style-type: none"> • Basic Mode: Basic mode provides a minimal set of 12 high-level properties. • Advanced Mode <p>See below for a full description.</p>

Basic mode

The table below lists the subproperties available in Basic Mode.

Basic mode provides a minimal set of 12 high-level properties. Even with this limited subset, you can create print-ready layouts on rolls or boards while controlling rotation, sheet margins, and the cutting tool paths. You can also include and customize dynamic barcodes, camera marks, and text marks.

Basic mode always performs free nesting appropriate for cutting tables. Barcodes are always placed in the upper-left corner of the layout while text marks are placed in the center of the top edge. There is some control over mark content while Advanced mode provides many more properties.

Basic Mode Properties	Description
Trigger every N files	The total number of artwork files needed before starting processing in Basic mode. An empty or 0 value disables this option.
Trigger after N minutes	Start processing current set of artwork pieces N minutes after first artwork arrived in Basic mode regardless of whether required number of artwork pieces has been reached. An empty or 0 value disables this option.
Substrate	Select the substrate type you need (predefined board or roll size to use for imposition).
Margin	Enter the required margin. Distance from bottom
Quantity	Enter the required quantity.
Rotation	Options are: <ul style="list-style-type: none"> • Any • Orthogonal • None
Cutting tool	Enter the required cutting tool.
Barcode	Select a barcode. Options are: <ul style="list-style-type: none"> • Code 39 • Code 128 • QR Code • None <p>You also have to specify the data you want to use for the barcode. Select the option of your choice: Layout random ID, Layout name, Layout index, Layout dimensions, Job ID, Date (ISO or long format), Time (ISO or long format).</p>
Camera marks	Options are: <ul style="list-style-type: none"> • None • Corners • Auto distribute • Corners and Auto distribute <p>You also need to specify the quantity.</p>
Text mark	Select the option of your choice: None, Layout random ID, Layout name, Layout index, Layout dimensions, Job ID, Date (ISO or long format), Time (ISO or long format).

Advanced mode

Due to the number of limitations in Basic mode, most users will opt to use Advanced mode instead which gives you full control of all features in the Griffin app. Below is a list of Advanced mode capabilities beyond what is possible in Basic mode:

- Artwork tiling
- Artwork scaling
- Image tracing for automatic cut line generation
- Artwork and board flutes directions
- Multi-page handling options
- Artwork front repeat or mirror to back
- Artwork barcode, text, fill, and grommet marks
- Nest for guillotine cutters or cutting tables
- Custom roll and board sizes
- Turn vs. tumble for double-sided layouts
- Custom trigger conditions
- Trigger identifiers to control which artwork files are processed together
- Up to four different tool types can be imported at a time
- Content margins defined independently for each sheet edge
- Options to control artwork bleed clipping path offsets and spacing
- Mark position and other mark customization options

Advanced mode properties are classified into three categories - **Trigger conditions, Layout properties, and Artwork properties**. Each category is represented by a read-only property with all related properties defined as child nodes of the property.

Trigger conditions

Trigger conditions define when artwork files being collected in the input folder are processed by Griffin. You can trigger processing when N or more files arrive, N minutes after the first file has arrived, or on a custom trigger condition. You can also control which artwork files are to be included together during processing by using a Trigger identifier. When multiple trigger condition properties are configured, the first trigger event that occurs will cause all input jobs with the same trigger identifier value to be processed.

Advanced mode - Trigger conditions	Description
Trigger every N files	The total number of artwork files needed before starting processing in Advanced mode. An empty or 0 value disables this option.
Trigger after N minutes	Start processing current set of artwork pieces N minutes after first artwork arrived in Advanced mode regardless of whether required number of artwork pieces has been reached. An empty or 0 value disables this option.
Trigger on condition	Processing is started whenever this condition is true regardless of whether N files or N minutes rules have been met. This condition is re-evaluated for each new job in the context of that job. A value of None means this option is disabled.
Trigger identifier	A string value evaluated in the context of each incoming job that determines which artwork files should be processed together. If set, Griffin will include only jobs with the same

Advanced mode - Trigger conditions	Description
	Trigger Identifier and the "Trigger every N files" and "Trigger after N minutes" properties will only consider other jobs with the same Trigger identifier value when determining whether processing should start. A value of None means this option is disabled.

Layout properties

Layout properties control how artwork pieces are placed on layouts, substrate type and sizes, double sided handling, margins, and layout placement.



Note: Barcode and text mark have options for using dynamic keywords.

Advanced mode - Layout properties	Description
Strategy	<p>This option dictates the kind of layouts that are created. Options are:</p> <ul style="list-style-type: none"> • Free nesting: This is the most aggressive nesting strategy and is ideal for cutting tables. • Grid nesting: This also nests irregular shapes while keeping same shaped items together on the sheet in step and repeat groups. • Guillotine: This will place pieces in strips that can be cut out with a guillotine cutter. This strategy triggers a subordinate property: <i>First cut</i>: This is the direction of the first cut, either Horizontal, Vertical or Either.
Rotation	<p>Rotation along with Flutes for board substrates and the Flutes property in Artwork properties control the allowed rotations for artwork pieces in the layout. Options are:</p> <ul style="list-style-type: none"> • Any: This option lets artwork pieces be placed at any angle unless the artwork and board both have flutes directions in which case only rotations that align flutes directions are allowed. • Orthogonal: This type of rotation allows 0, 90, 180, and 270 degree rotations unless flutes need to be honored. • None: This will ensure that artwork pieces are not rotated on the layout.
Allow multiple layout copies	Indicates whether or not to allow multiple copies of layouts generated by the nesting tool.
Substrate type	<p>Type of substrate to nest onto. Options are:</p> <ul style="list-style-type: none"> • Board • Roll

Advanced mode - Layout properties	Description
	<p>Subordinate properties are:</p> <ul style="list-style-type: none"> • <i>Width</i>: Width of board or roll to nest artwork onto. • <i>Height</i>: Height of board to nest artwork onto. • <i>Flutes</i>: Flutes direction of board if any. Long means flutes run in the direction of the long edge of the board, while Short means flutes run along the short edge of the board. • <i>Min roll cut-off</i>: Min roll cutoff height. • <i>Max roll cut-off</i>: Max roll cutoff height. • <i>Name</i>: Optional name of substrate used in reporting and Zund Cut Center (ZCC) cutting output. • <i>Thickness</i>: Optional substrate thickness. Thickness is included in reporting and Zund Cut Center (ZCC) cutting output to automatically match the substrate with the corresponding material in Zund Cut Center.
Double sided	Work style when handling double-sided work.
Horizontal placement	Horizontal position on the layout to align nested artwork pieces.
Vertical placement	Vertical position on the layout to align nested artwork pieces.
Top margin	Amount of space on top edge of layout to ensure that no artwork pieces are placed into in Advanced mode.
Bottom margin	Amount of space on bottom edge of layout to ensure that no artwork pieces are placed into in Advanced mode.
Left margin	Amount of space on left edge of layout to ensure that no artwork pieces are placed into in Advanced mode.
Right margin	Amount of space on right edge of layout to ensure that no artwork pieces are placed into in Advanced mode.
Camera marks	<p>Whether or not to add camera marks to each generated layout in Advanced mode.</p> <p>If set to Yes, a number of subordinate properties are shown:</p> <ul style="list-style-type: none"> • <i>Shape</i>: Shape of the camera marks: circle or cross. This triggers the following properties: <ul style="list-style-type: none"> • <i>Stroke color</i>: Camera mark stroke color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for camera mark stroke color. In case of a spot name: optional spot name for camera mark stroke color. When specified, this custom color is treated as a spot color instead of a process color.

Advanced mode - Layout properties	Description
	<ul style="list-style-type: none"> • <i>Stroke thickness</i>: Camera mark stroke thickness • <i>Fill color</i> (only for circle marks): Camera mark fill color. • <i>Size</i>: The size of each camera mark instance. • <i>Layer</i>: Optional layer name for this camera mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Min distance</i>: The minimum distance to place camera marks from the shape of items in the layout. • <i>Add corners</i>: Whether to place camera marks in the four corners of the layout. This triggers: <ul style="list-style-type: none"> • <i>Double corner</i>: Whether to include a second corner mark in the lower-right corner of the layout. If enabled, the second corner mark is placed to the left of the right corner mark by the double corner offset. If enabled, this triggers <i>Double corner offset</i>: Distance to place the second corner mark from the lower-right corner mark. • <i>Margins</i>: <ul style="list-style-type: none"> • Use <i>Layout margins</i> to ensure camera marks are not placed outside the allowed content region of the layout. • Use <i>Custom margins</i> to define custom distances from each sheet edge where camera marks can be placed. • <i>Mirror to back</i>: When enabled, camera marks are automatically mirrored to the back side of the layout. This is useful for cases when the layout will be getting cut face down on the cutting table. • <i>Auto distribute</i>: Mode to use to automatically place camera marks throughout the layout. Options are: <ul style="list-style-type: none"> • None: Only corner camera marks are placed. • Spacing: A minimum spacing distance is used. • Quantity: A specific number of marks is added. This quantity is not guaranteed since there are situations where space is too limited.
Barcode	<p>Whether or not to add a barcode mark to each generated layout in Advanced mode.</p> <p>Following options are triggered:</p> <ul style="list-style-type: none"> • <i>Fill color</i>: Layout barcode color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for layout barcode fill color. In case of a spot name: optional spot

Advanced mode - Layout properties	Description
	<p>name for layout barcode fill color. When specified, this custom color is treated as a spot color instead of a process color.</p> <ul style="list-style-type: none"> • <i>Layer</i>: Optional layer name for this layout barcode. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Format</i>: Layout barcode format type. This triggers <i>Show human-readable</i>: If enabled, plain text of the barcode content is included below the barcode for 1D barcode formats such as Code 39 and Code 128. • <i>Data</i>: Dynamic keyword for barcode content or any custom text when using the 'Custom' option in Advanced mode. Each keyword option has a corresponding text value that can be used and combined in the custom text value. See Dynamic keywords table below. • <i>Scale</i>: Scale factor to apply to the layout barcode to increase or decrease its size. The default value of 1.0 signifies 100% meaning no scaling is performed on the barcode. • <i>Mark reference point</i>: Reference point in this layout barcode to align layout placement point to. • <i>Layout reference point</i>: Point within layout to place barcode mark alignment point to. • <i>Horizontal offset</i>: Additional horizontal offset to move the layout barcode from the placement point. Positive scalar values move the barcode to the right while negative values move the barcode to the left within the layout. • <i>Vertical offset</i>: Additional vertical offset to move the layout barcode from the placement point. Positive scalar values move the barcode up while negative values move the barcode down within the layout. • <i>Rotation</i>: Rotation of the barcode in the layout.
Text mark	<p>Whether or not to add a text mark to each generated layout.</p> <ul style="list-style-type: none"> • <i>Color</i>: Layout text mark color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for layout text mark. In case of a spot name: optional spot name for layout text mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Layer</i>: Optional layer name for this layout text mark. When specified, the mark's content will be placed in a PDF layer with the given name during export.

Advanced mode - Layout properties	Description
	<ul style="list-style-type: none"> • <i>Text</i>: Dynamic keyword for layout text content or any custom text when using the 'Custom' option in Advanced mode. Each keyword option has a corresponding text value that can be used and combined in the custom text value. See Dynamic keywords table below. • <i>Font</i>: Name of font to use in this layout text mark. Use 'Select from library' to view a list of available fonts. • <i>Font size</i>: Size of text in points (pt) for this layout text mark. • <i>Font style</i>: Font style of layout text mark. Note that some fonts do not support all styles. When a style is chosen that is not available for the given font, the style will default to Normal and a warning message will be logged in Switch. • <i>Mark reference point</i>: Reference point in this layout text mark to align layout placement point to. • <i>Layout reference point</i>: Point within layout to place layout text mark alignment point to. • <i>Horizontal offset</i>: Additional horizontal offset to move the layout text mark from the placement point. Positive scalar values move the mark to the right while negative values move the mark to the left within the layout. • <i>Vertical offset</i>: Additional vertical offset to move the mark from the placement point. Positive scalar values move the layout text mark up while negative values move the mark down within the layout. • <i>Rotation</i>: Rotation of layout text mark within layout
Border mark	<p>Whether or not to add a border mark to each generated layout.</p> <ul style="list-style-type: none"> • <i>Stroke color</i>: Border mark stroke color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for layout border mark. In case of a spot name: optional spot name for layout border mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Stroke thickness</i>: Stroke thickness of border lines. • <i>Fill color</i>: Border mark fill color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for layout border mark. In case of a spot name: optional spot name for layout border mark. When specified, this custom color is treated as a spot color instead of a process color.

Advanced mode - Layout properties	Description
	<ul style="list-style-type: none"> • <i>Layer</i>: Optional layer name for this border mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Top</i>: Distance from the top edge of the sheet in the downward direction to draw the top edge of the border mark. • <i>Bottom</i>: Distance from the bottom edge of the sheet in the upward direction to draw the bottom edge of the border mark. • <i>Left</i>: Distance from the left edge of the sheet in the right direction to draw the left edge of the border mark. • <i>Right</i>: Distance from the right edge of the sheet in the left direction to draw the right edge of the border mark.
Corner mark	<p>Whether or not to add a corner mark to each generated layout.</p> <ul style="list-style-type: none"> • <i>Stroke color</i>: Corner mark stroke color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for layout corner mark. In case of a spot name: optional spot name for layout corner mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Stroke thickness</i>: Stroke thickness of corner mark lines. • <i>Layer</i>: Optional layer name for this layout corner mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Corner type</i>: Corner mark flavors: Type 1 or Type 2. Both types are simple "L" shaped stroked marks, with Type 1 corner marks facing towards the layout and Type 2 facing outwards. • <i>Width</i>: Width of each corner mark, i.e. the distance from the corners to extend the horizontal lines. • <i>Height</i>: Height of each corner mark, i.e. the distance from the corners to extend the vertical lines. • <i>Horizontal distance</i>: Optional distance to offset the corner mark in the horizontal direction. Positive values will move the corner point away from the layout while negative values will move the corner point inside the layout. • <i>Vertical distance</i>: Optional distance to offset the corner mark in the vertical direction. Like Horizontal Distance, positive values will move the corner point away while

Advanced mode - Layout properties	Description
	negative values with move the corner point inside the layout.

Artwork properties

Artwork properties control how each individual artwork file is handled in Griffin. Here you can define the order quantity, flutes direction, cutting tools mappings from PDF paths, bleed mask offsets, and placement spacing.

You can also optionally scale the artwork using the Scaling property. Scaling can be defined as a percentage of the original size or a fixed size.

Artwork properties also include the Multi-page file handling property that allows you to control how to interpret multi-page artwork files. "One item per two pages" will interpret even numbered pages as the back side content of the previous page. "One item per page" will treat each page as a different single-sided artwork piece and gives you the option of duplicating the artwork to the back or mirroring the front to the back with the Back side content child property.

Artworks properties also include the options to add a Barcode, Text, Corner, Grommet, and Fill marks to the artwork. Like layout marks, each mark type has several child properties controlling content, placement, and color.

Advanced mode - Artwork properties	Description
Quantity	Order quantity for this artwork.
Flutes	Flutes direction of this artwork if any.
Multi-page file handling	This option affects how multi-page artwork files are interpreted. Options are: <ul style="list-style-type: none"> • One item per page This option triggers <i>Back side content</i>: Content to use for back side if any. Front artwork can be duplicated on back or mirrored to back. • One item per two pages This is the best option if you work with two page artwork files containing the front and back sides of the artwork files.
Shape handling	Shape handling mode to use when finding closed path shapes from the dielines in the artwork. Options are: <ul style="list-style-type: none"> • Largest • Multiple: This mode will create a new artwork item for each closed path shape detected in the artwork.
Default cut tool	Main tool being used to cut artwork item. Depending on the chosen tool, following subordinate properties are displayed: <ul style="list-style-type: none"> • <i>Spot color names</i>: List of names to match with spot color names in the artwork that define paths for default cut tool type. Matching is case insensitive.

Advanced mode - Artwork properties	Description
	<ul style="list-style-type: none"> • <i>Layer names</i>: List of names to match with layer names in the artwork that identify paths for default cut tool type. Matching is case insensitive. • <i>Text match</i>: Type of text matching to use for default cut tool. 'Equals' matches the text exactly with the spot or layer name, 'StartsWith' matches the text with the beginning of the name, and 'Contains' matches the text with any portion of the name. • <i>Cutting width</i>: Width of the main cutting tool. This property can be used to define the spacing distance between items the Nesting Tool uses when the artwork item spacing type is set to 'Tool' to ensure the cutting tool does not affect other items in the layout. • <i>Offset</i>: Optional scalar offset to apply to the shape for the default cut tool. Negative offset values will cause the shape to be reduced while positive values will increase the shape size. • <i>Join style</i>: The style used to join path segments in the shape when a cutting offset is applied for the default cut tool. If set to <i>Miter</i>, <i>Miter limitis</i> triggered: For Cut category tools with a cutting offset and 'Miter' join style, this limit defines the distance beyond the end of the joined path segments where mitering is clipped to avoid long spikes on sharp corners.
Additional tool 1-3	Optional tools to define in addition to the default cut tool when more than one tool is used with the artwork. For a description of the subordinate properties, refer to the explanation of 'Default cut tool'.
Scaling	<p>Whether to scale the artwork to make the content and shape bigger or smaller. Scaling can be defined by percentage of original artwork shape size or by specific dimensions.</p> <p>Subordinate properties:</p> <ul style="list-style-type: none"> • <i>Width</i>: Horizontal scaling defined as percent of original artwork width. For example, 50% is half of the original artwork shape width while 100% results in no scaling. Percent sign '%' is not required. • <i>Height</i>: Vertical scaling defined as percent of original artwork height. For example, 50% is half of the original artwork shape height while 100% results in no scaling. Percent sign '%' is not required. • <i>Scale proportionally</i>: When either width or height are not specified, this property controls whether the unspecified dimension is scaled proportionally to the other dimension.

Advanced mode - Artwork properties	Description
	When turned off, only the dimension that is specified is scaled.
Bleed	<p>Type of bleed mask to apply to this artwork piece's content:</p> <ul style="list-style-type: none"> • Offset: This option creates a uniform offset path from the artwork piece shape. You must determine the exact offset: offset from artwork piece shape to generate bleed clipping mask with. As with all other scalar value properties, units may be specified (e.g. 3mm) and if omitted, the default units are assumed • None will not apply a bleed mask.
Spacing	<p>Artwork piece spacing type used when placing piece in layouts during nesting. Options:</p> <ul style="list-style-type: none"> • Bleed • Offset: This option triggers a property <i>Offset</i> where you can specify the amount of offset. As with all other scalar value properties, units may be specified (e.g. 3mm) and if omitted, the default units are assumed. • Tool
Tiling	<p>Tiling mode for artwork:</p> <ul style="list-style-type: none"> • None: This option disables tiling. • Direct: Allows you to define properties to control tiling behavior in the horizontal and vertical directions. This option triggers the following subordinate properties: <ul style="list-style-type: none"> • <i>Start corner:</i> The corner of the artwork where the first tile is to be placed. This property plus tile order define the exact order tiles are to be placed. • <i>Tile order:</i> Tile placement order. This property plus start corner define the exact order tiles are to be placed. • <i>Horizontal tiling:</i> Rule for splitting up artwork into tiles in the horizontal direction. Used to divide the artwork into multiple items to be produced separately. Depending on the chosen option, following subordinate properties are shown: <ul style="list-style-type: none"> • <i>Number of tiles:</i> Number of tiles to create in the horizontal direction. Tiles are evenly spaced across the width of the artwork. • <i>Uniform final size:</i> When defining a fixed number of tiles, enabling this option ensures the final tile sizes are uniform in the horizontal direction regardless of gap or overlap settings. When not enabled, inner and

Advanced mode - Artwork properties	Description
	<p>edge tile sizes can differ because uniform tile sizes are then calculated before gap or overlap rules are applied.</p> <ul style="list-style-type: none"> • <i>Tile width</i>: Fixed width of tiles in horizontal direction. • <i>Tile widths</i>: List of all tile widths in the horizontal direction. • <i>Tiling method</i>: Tiling method to use in horizontal direction in any: Gap or Overlap. <ul style="list-style-type: none"> • <i>Gap</i>: Gap distance between tiles in the horizontal direction. • <i>Extension</i>: Amount of extra artwork content beyond the tile gap edge to extend in the horizontal direction. • <i>Extension direction</i>: Rule defining which horizontal direction(s) the gap is extended for each tile. • <i>Overlap</i>: Distance beyond tile edge to extend the tile horizontally to create overlap. • <i>Overlap rule</i>: Rule defining what horizontal edge(s) of tiles will overlap with neighboring tiles. • <i>No-image</i>: Width of the section at the end of the overlap where no artwork content is allowed. This no image section can be used for example to create a glue strip area on the tile piece. • <i>Vertical tiling</i>: See Horizontal tiling. Same properties but in the vertical direction.
Image tracing	<p>Whether to perform image tracing on the artwork to automatically generate precise cut paths around artwork content. If enabled, following subordinate properties are enabled:</p> <ul style="list-style-type: none"> • <i>Tool type</i>: Name of the cutting tool to use for the generated cut tool path. • <i>Raster quality</i>: Quality of the raster image to use for generating the cut tool path from 1 to 100. A value of 100 (i.e. 100%) will rasterize the image at full size up to a limit of 10 megapixels. Lower values will scale the image down for faster processing and in some case preferred results as less detail is used for tracing.

Advanced mode - Artwork properties	Description
	<ul style="list-style-type: none"> • <i>Tolerance</i>: Amount of color difference to allow before adjacent colors are considered different. A value of 0 means no tolerance in color differences is allowed while 100 is the maximum allowed tolerance in color differences. • <i>Blur radius</i>: The amount of blurring to apply to edges that are encountered during edge detection between 0 and 100. A higher blur radius means more blurring is applied during edge detection which can lead to less jagged paths. • <i>Simplify</i>: The amount of simplification to apply to the generated path. Simplify works by removing points on the path that are within a certain tolerance. A value of 0 disables path simplification while a value of 100 will use the highest allowed tolerance when removing points. • <i>Smoothing</i>: Smoothing converts individual points on the generated path to Bezier curves to produce smoother paths. A value of 0 disables path smoothing while a value of 100 will perform the most aggressive path curve smoothing. • <i>Offset</i>: Additional offset distance to expand the generated path.
Barcode	<p>Whether or not to add a barcode mark to this artwork piece.</p> <p>Following options are triggered:</p> <ul style="list-style-type: none"> • <i>Fill color</i>: Artwork barcode color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for artwork barcode fill color. In case of a spot name: optional spot name for artwork barcode fill color. When specified, this custom color is treated as a spot color instead of a process color. • <i>Layer</i>: Optional layer name for this artwork barcode. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Format</i>: Artwork barcode format type. This triggers <i>Show human-readable</i>: If enabled, plain text of the barcode content is included below the barcode for 1D barcode formats such as Code 39 and Code 128. • <i>Data</i>: Dynamic keyword for barcode content or any custom text when using the 'Custom' option in Advanced mode. Each keyword option has a corresponding text value that can be used and combined in the custom text value. See Dynamic keywords table below. • <i>Scale</i>: Scale factor to apply to the artwork barcode to increase or decrease its size. The default value of 1.0

Advanced mode - Artwork properties	Description
	<p>signifies 100% meaning no scaling is performed on the barcode.</p> <ul style="list-style-type: none"> • <i>Artwork reference point</i>: Reference point in this artwork barcode to align artwork placement point to. • <i>Artwork reference point</i>: Point within artwork to place barcode mark alignment point to. • <i>Horizontal offset</i>: Additional horizontal offset to move the artwork barcode from the placement point. Positive scalar values move the barcode to the right while negative values move the barcode to the left within the artwork. • <i>Vertical offset</i>: Additional vertical offset to move the artwork barcode from the placement point. Positive scalar values move the barcode up while negative values move the barcode down within the artwork. • <i>Rotation</i>: Rotation of the barcode in the artwork.
Text mark	<p>Whether or not to add a text mark to this artwork.</p> <ul style="list-style-type: none"> • <i>Color</i>: Artwork text mark color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for artwork text mark. In case of a spot name: optional spot name for artwork text mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Layer</i>: Optional layer name for this artwork text mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Text</i>: Dynamic keyword for artwork text content or any custom text when using the 'Custom' option in Advanced mode. Each keyword option has a corresponding text value that can be used and combined in the custom text value. See Dynamic keywords table below. • <i>Font</i>: Name of font to use in this artwork text mark. Use 'Select from library' to view a list of available fonts. • <i>Font size</i>: Size of text in points (pt) for this artwork text mark. • <i>Font style</i>: Font style of artwork text mark. Note that some fonts do not support all styles. When a style is chosen that is not available for the given font, the style will default to Normal and a warning message will be logged in Switch. • <i>Mark reference point</i>: Reference point in this artwork text mark to align artwork placement point to.

Advanced mode - Artwork properties	Description
	<ul style="list-style-type: none"> • <i>Artwork reference point</i>: Point within artwork to place artwork text mark alignment point to. • <i>Horizontal offset</i>: Additional horizontal offset to move the artwork text mark from the placement point. Positive scalar values move the mark to the right while negative values move the mark to the left within the artwork. • <i>Vertical offset</i>: Additional vertical offset to move the mark from the placement point. Positive scalar values move the artwork text mark up while negative values move the mark down within the artwork. • <i>Rotation</i>: Rotation of artwork text mark within the artwork.
Corner mark	<p>Whether or not to add a corner mark to this artwork piece. Subordinate properties are:</p> <ul style="list-style-type: none"> • <i>Stroke color</i>: Corner mark stroke color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for artwork corner mark. In case of a spot name: optional spot name for artwork corner mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Stroke thickness</i>: Stroke thickness of corner mark lines. • <i>Layer</i>: Optional layer name for this artwork corner mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Corner type</i>: Corner mark flavors: Type 1 or Type 2. Both types are simple "L" shaped stroked marks, with Type 1 corner marks facing towards the artwork and Type 2 facing outwards. • <i>Width</i>: Width of each corner mark, i.e. the distance from the corners to extend the horizontal lines. • <i>Height</i>: Height of each corner mark, i.e. the distance from the corners to extend the vertical lines. • <i>Horizontal distance</i>: Optional distance to offset the corner mark in the horizontal direction. Positive values will move the corner point away from the artwork while negative values will move the corner point inside the artwork. • <i>Vertical distance</i>: Optional distance to offset the corner mark in the vertical direction. Like Horizontal Distance, positive values will move the corner point away while negative values will move the corner point inside the artwork.

Advanced mode - Artwork properties	Description
Grommet marks	<p>Whether or not to add grommet marks to this artwork piece. Subordinate properties are:</p> <ul style="list-style-type: none"> • <i>Stroke color</i>: Artwork grommet mark color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for artwork grommet mark color. In case of a spot name: optional spot name for artwork grommet mark. When specified, this custom color is treated as a spot color instead of a process color. • <i>Stroke thickness</i>: Stroke thickness of grommet mark lines. • <i>Layer</i>: Optional layer name for this artwork grommet mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. • <i>Shape</i>: Shape of each grommet mark (Target, Cross, Circle). You must also determine the size (width and height of each grommet mark instance) and the circle diameter (= this is the diameter of the inner circle in Target shape grommet marks). • <i>Margin</i>: The margin offset to place grommet marks from the bounds of the artwork. • <i>Hem</i>: The width of the hem for artwork grommet marks. • <i>Marks on hem</i>: If enabled, grommet marks are mirrored onto the hem so they line up when the edges are folded. • <i>Spacing type</i>: This property controls how artwork grommet marks are distributed across the edges. <ul style="list-style-type: none"> • Max spacing will evenly place marks as far apart as possible up to the max spacing distance. • Quantity will place the exact number of marks defined in the horizontal and vertical quantity properties. • <i>Top edge/bottom edge/left edge/right edge</i>: Whether to add grommet marks to the specified edge of the artwork.
Fill mark	<p>Whether or not to add a fill mark to this artwork piece. Subordinate properties are:</p> <ul style="list-style-type: none"> • <i>Color</i>: Fill mark color. Cyan/Magenta/Yellow/Black component of custom color from 0 to 100 for artwork fill mark color. In case of a spot name: optional spot name for artwork fill mark. When specified, this custom color is treated as a spot color instead of a process color.

Advanced mode - Artwork properties	Description
	<ul style="list-style-type: none"> <i>Layer</i>: Optional layer name for this artwork fill mark. When specified, the mark's content will be placed in a PDF layer with the given name during export. <i>Margin</i>: Margin offset from the artwork piece shape to create the fill mark

Dynamic keywords that can be used for barcodes (overview)

Value	Keyword	Description
Date ISO format	<date.iso>	The current date in ISO 8601 format Example: 2024-01-26
Date long format	<date.long>	The current date in long format Example: January 26, 2024
Date medium format	<date.medium>	The current date in medium format Example: Jan 26, 2024
Date short format	<date.short>	The current date in short format Example: 1/26/2024
Job ID	<job.id>	The Job ID of the current job as defined in Job Properties
Time ISO format	<time.iso>	The current time in ISO 8601 format Example: 21:30:49
Time long format	<time.long>	The current time in long format Example: 11:30:49 PM EST
Time medium format	<time.medium>	The current time in medium format Example: 11:30:49 PM
Time short format	<time.short>	The current time in short format Example: 11:30 PM
Following keywords apply to layouts (not available in the Artwork properties)		
Layout copies	<layout.copies>	The number of copies being produced of the current layout.
Layout current copy	<layout.copy>	The current copy of the layout being printed
Layout dimensions	<layout.dimensions>	The width and height of the current layout Example: 800 x 1200 mm
Layout index	<layout.index>	The index number of this layout Numbering starts at 1.

Value	Keyword	Description
Layout name	<layout.name>	The name of this layout
Layout placed	<layout.placed>	The number of artwork items placed on this layout
Layout random ID	<layout.random>	The unique random ID generated for this layout
Layout side	<layout.side>	The current layout side: Front or Back
Layout waste	<layout.waste>	The percentage of waste on the current layout
Layout width	<layout.width>	The width of the layout
Layout height	<layout.height>	The height of the layout
Following keywords apply to artwork (not available in the Layout properties)		
Artwork name	<artwork.name>	The name of the artwork
Artwork quantity	<artwork.quantity>	The quantity of the artwork
Artwork width	<artwork.width>	The width of the artwork
Artwork height	<artwork.height>	The height of the artwork
Artwork path	<artwork.path>	The filesystem path of the artwork file the current artwork item came from.
Artwork page number	<artwork.page-number>	The total number of pages of the artwork file the current artwork item came from.
Artwork page count	<artwork.page-count>	The total number of pages of the artwork file the current artwork item came from.

Dealing with errors

There are a few different types of errors that can occur in the Griffin Switch App. The best way to find out what is causing an error is to look to the Griffin log file, found here:

- On MacOS:

```
Users/[user]/Library/Application Support/Enfocus/Switch Server/ScriptData/com.tilia.griffin.app/log/rolling.log
```

- On Windows:

```
C:\Users\[user]\AppData\Roaming\Enfocus\Switch Server\ScriptData\com.tilia.griffin.app\log\rolling.log
```

Most of the time, the log will point directly to the error, for example:

```
'The license on this machine has been activated on another machine. Please activate a valid license in order to continue using Griffin Auto on this machine.'
```

In any event, this log will be helpful in diagnosing the issue.