4.5 Overlay Forms

Thunderhead's Overlay Form functionality allows you to import or create Overlay Forms.

An Overlay Form is a container for a single Form and any Overlay Objects to be rendered on top of it. A Form that is simply drawn as a background for the final output can be imported, in JPG, PNG, SVG, PDF or TIFF format, into a Document Template or Shared Content using Business Content Studio's Add Overlay Form wizard. Overlay Objects such as Data Fields can then be drawn on top of the imported Form using the Overlay Designer.

For display purposes and presentation, Business Content Studio creates a rasterized version of the source image. The original format is stored in the underlying TML, either as an encoded string or as SVG mark-up.

BCS does not support the copying and pasting of form fields from Microsoft® Word into BCS (see Limitations When Copying From an External Document in Cut, Copy and Paste).

To run the Add Overlay Form wizard, within your Document Template or Shared Content, either:

- Select **Structure** | **Add Overlay Form**
- Right-click to select **Add Overlay Form**

Licensing

As of Thunderhead 5.0.20, Overlay Forms are a licensable feature. The **Add Overlay Form** menu options in Business Content Studio are only available where Overlay Forms functionality is enabled in your license.

If your system has been upgraded from 5.0.15+ to 5.0.20, the **Add Overlay Form** menu options will not be available unless your Thunderhead license has been updated.

If an unlicensed user attempts to edit the rasterized version of any Overlay Form created in Thunderhead prior to version 5.0.20, or to render the output, then a system message will indicate that they are not licensed to use the feature.

4.5.1 Add Overlay Form

The Add Overlay Form wizard is used to import a Form into a Document Template or Shared Content.

The wizard has the following steps:

Step	Title	Description
1	*Select Form File* (p. 119)	Allows you to select the Form that you want to import.
2	Import Options	Allows you to control the import options. Different screens are provided for importing a *PDF* (p. 120) image, an *SVG* (p. 123) image or a *Multi-page TIFF* (p. 124) image.
3	*Preview* (p. 126)	Displays a preview of the Form.
4	*Copy Overlay Objects* (p. 128)	Allows you to copy Overlay Objects, such as data fields. A comparison view (see *Copy Overlay Objects, Screen 2* (p. 129)) allows you to select which Overlay Objects to copy from the existing Resource to the new Overlay Form
5	*Confirmation* (p. 129)	Allows you to confirm your choices in order to add the Overlay Form to the Document Template.

4.5.1.1   Select Form File

In the first step of the Add Overlay Form wizard you must select the Form that you want to import from the file system.
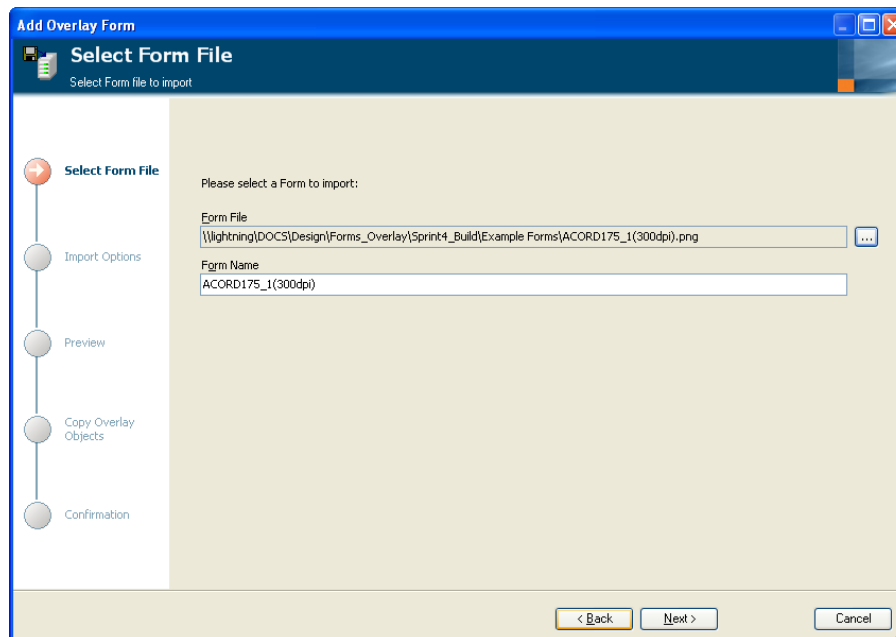
Form File

Click the associated ellipsis button to display a standard *File Open* dialog, filtered to display for selection only files of an appropriate type, i.e. TIFF, TIF, JPG, JPEG, PNG, PDF, and SVG.

Any SVG created using a tool other than Inkscape, PDFTron, or Adobe Illustrator should be saved using a DPI setting of 96.

Form Name

This field is populated automatically, but the name value can be edited.

Next

A Form File must be selected and the Form Name must be entered before you can continue. The next step in the wizard is determined by the type of file selected.

4.5.1.2   Import Options (PDF)

This screen is displayed only if the format of the image file selected in the previous step, *Select Form File* (p. 119), is PDF. It allows you to control the PDF import options.
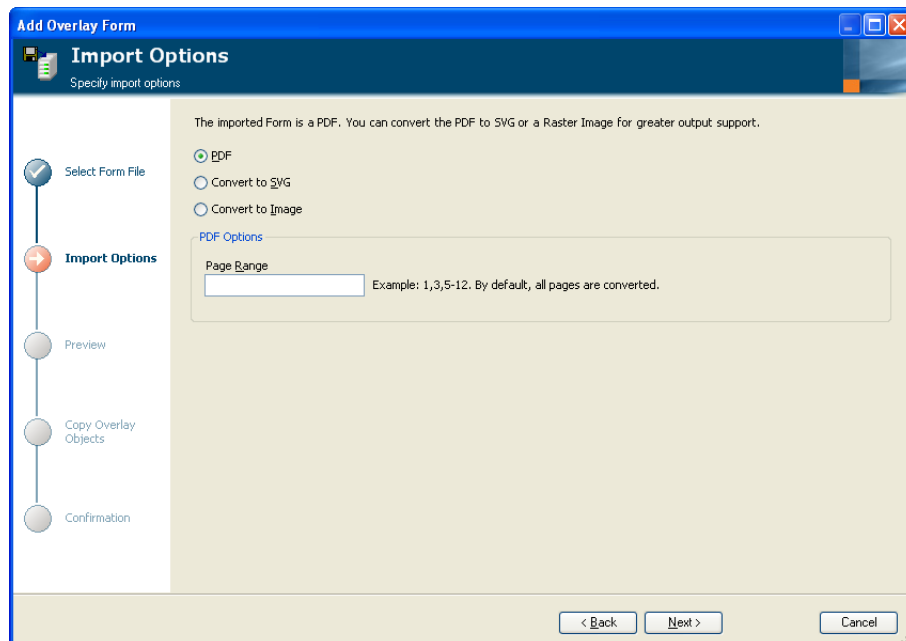
Since PDF has limited output support this screen allows you to convert the PDF to SVG or a raster image for greater output support.

> Thunderhead 6.0 supports PDF 1.5 and PDF 1.6.
>
> In order to perform the conversion you must specify the location of the required Overlay Plug-ins in the Options, *Overlay Plugins* (p. 74) tab.

Select either **PDF**, **Convert to SVG** or **Convert to Image**. The remaining options on this screen are specific to your selection.
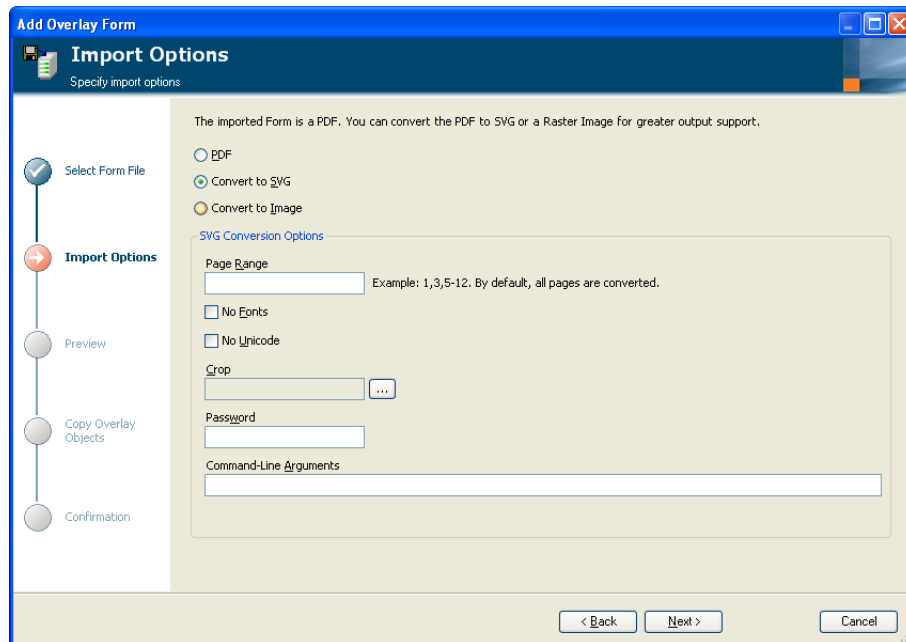
PDF Options

Page Range

Specify which pages should be converted by entering a valid page range, e.g. 1,3,5, 5-12, or 1,3,5-12. By default all pages are converted.

SVG Conversion Options

These options are not available unless an External SVG Converter file is specified in the Options, Overlay Plugins (p. 74) tab. Where an External SVG Converter file is specified all options are dependent upon the converter for support, and methods of implementation may vary.

Page Range

Specify which pages should be converted by entering a valid page range, e.g. 1,3,5, 5-12, or 1,3,5-12. By default all pages are converted.

No Fonts

Select this checkbox to disable the conversion of font data to SVG. This should result in the smaller SVG file size, but due to font substitution the text may not render accurately. By default (checkbox de-selected), all available fonts are converted to SVG.

No Unicode

Select this checkbox to disable the mapping of text to Unicode. Text will then be converted using custom encoding. By default (checkbox de-selected), all text is mapped to Unicode.

Crop

Specifies a crop box to be used as a clip region in the output SVG. Click the ellipsis button to display the SVG Crop window.
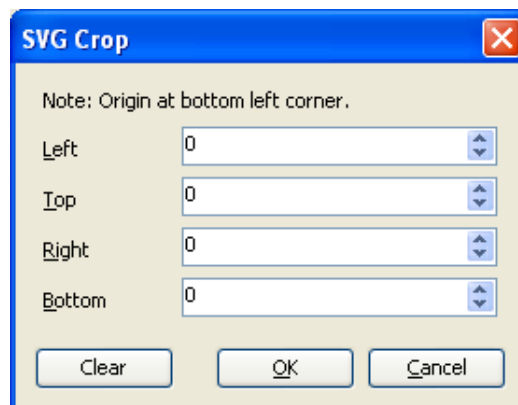
The Left, Top, Right and Bottom values specify, in units, the dimension of the region to be cropped. The origin is the bottom left corner. The value of the units of measurement will be defined in the external converter specified in the *Overlay Plugins Options* (p. 74).

Password

Enter the password for the input file. A password is not required if the input document is not secured.

Command-Line Arguments

Any additional command-line arguments to pass to the converter.

Image Conversion Options

These options are not available unless an External SVG Converter file is specified in the Options, *Overlay Plugins* (p. 74) tab. Where an External SVG Converter file is specified all options are dependent upon the converter for support, and methods of implementation may vary.

Page Range

Specify which pages should be converted by entering a valid page range, e.g. 1,3,5, 5-12, or 1,3,5-12. By default all pages are converted.

Image Format

Select a format for the output image. The options are JPEG, PNG or TIFF.

Image DPI

Specify the resolution of the output image, in the range 1 to 1000 Dots Per Inch (DPI). The default resolution is 96 DPI.

Password

Enter the password for the input file. A password is not required if the input document is not secured.

Command-Line Arguments

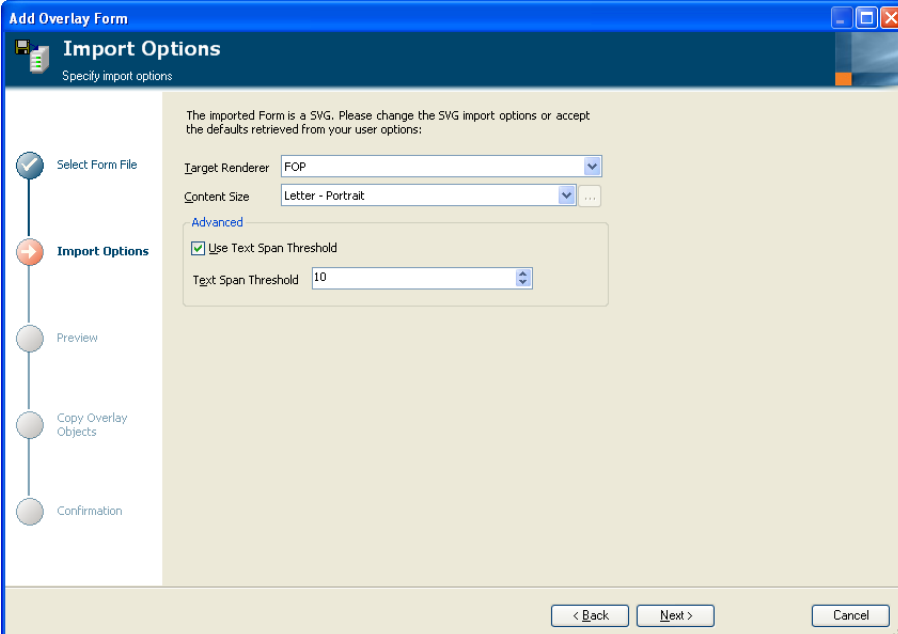Any additional command-line arguments to pass to the converter.

The values entered here will be saved in the user's settings and restored each time the wizard is run.

Next

Click **Next** to proceed. The next step in the wizard is determined by your selections. If you selected the Convert to SVG option the next step is define *Import Options for SVG* (p. 123), otherwise the PDF is previewed (see *Preview* (p. 126)).

4.5.1.3   Import Options for SVG

This screen is displayed only if the format of the image file selected in the previous step, *Select From File* (p. 119), is either SVG or PDF converted to SVG. It allows you to control the SVG import options.

These values initially default to those specified in Business Content Studio's Options, SVG tab (see *SVG Options* (p. 72)), but can be amended.

Target Renderer

Specify the default renderer that will targeted when importing SVG (see *Add/Edit SVG* (p. 279)). The options are FOP or XEP. If the XEP feature is enabled in the Thunderhead license XEP is the default, otherwise the default is FOP.

If your Thunderhead System is not licensed for XEP then the **Target Renderer** field will be hidden.

Content Size

Either:

• Select the format of your intended documentation from the listed default options, e.g. **A4 – Portrait**, **Letter – Portrait**.

• Select **Custom** to specify an alternative page size. Click the ellipsis button that this activates to display the *Page Size* dialog, and there specify custom **Page Width** and **Page Height** values.

Use Text Span Threshold

Select this checkbox to enforce a text span (SVG tspan) threshold. The default value is 0, which is also the minimum valid value.

Text Span Threshold

Specify a text span threshold, either by using the scroll control or by simply overwriting the default value.

FOP and XEP renderers apply the Text Span Threshold differently.

FOP simply merges any text spans with x-axis co-ordinates that are lower than the specified value.

XEP first splits any text spans with x-axis co-ordinates that are higher than the specified value, and then merges any text spans with x-axis co-ordinates that are lower than the specified value.

Next

Click **Next** to proceed. The SVG will be previewed in the next screen, *Preview* (p. 126), and the SVG options updated.

4.5.1.4   Import Options for Multi-Page TIFF

This screen is displayed only if the image file selected in the previous step, Select From File, is multi-page TIFF. It allows you to control the TIFF compression options.

The encoding option selected here is used to split and re-encoded the TIFF. The resulting TIFFs are stored as individual Overlay Forms in the TML.
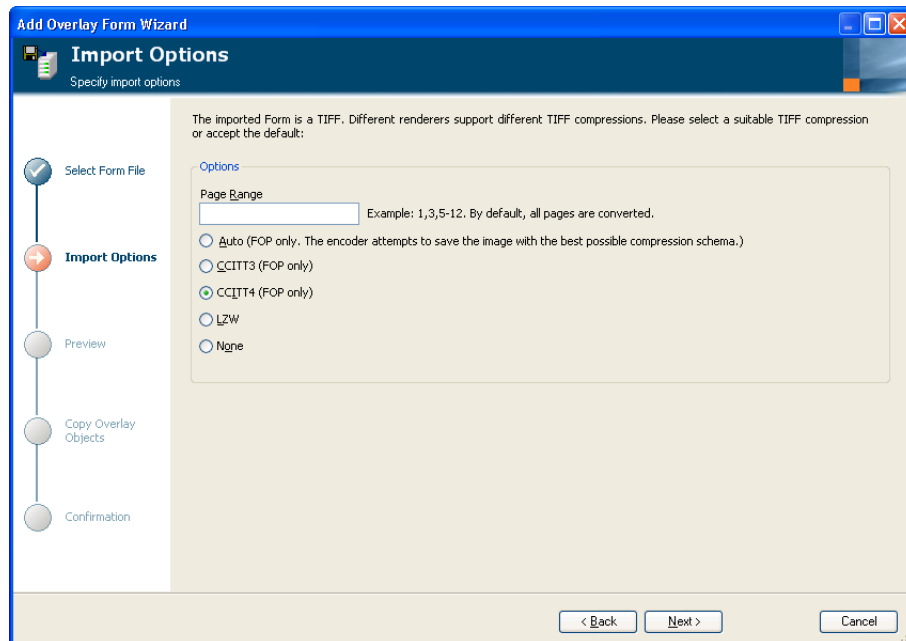
Select one of the available options:

- **Page Range** - Specify which pages should be converted by entering a valid page range, e.g. 1,3,5, 5-12, or 1,3,5-12. By default all pages are converted.

- **Auto** - Only applicable if FOP is used for rendering. The renderer attempts to save the image with the best possible compression schema.

The following options represent the various data compression algorithms that can be applied to a TIFF image:

- **CCITT3** - Only applicable if FOP is used for rendering. Apply the CCITT T.4 bi-level compression algorithm (Group 3 facsimile compression)

- **CCITT4** - Only applicable if FOP is used for rendering. Apply the CCITT T.6 bi-level compression algorithm (Group 4 facsimile compression)

- **LZW** - Apply the LZW compression algorithm

- **None** - Apply no compression

Selection of **None**, i.e. no data compression, may result in 'Out of Memory' issues. In this case, see Limitations | *Memory* (p. 139) below.

4.5.1.5   Preview

This screen displays a preview of the Form and, in the Preview Messages frame on the right, any rendering warnings or error messages.
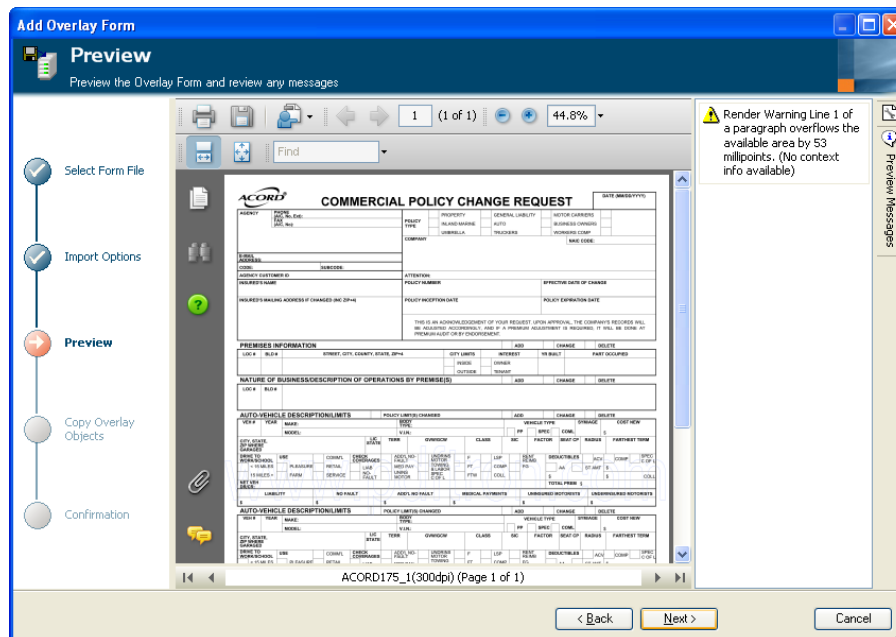
The preview uses a default Layout, the size of which is derived from the size of the imported Form, to render requested output format. This helps to resolve any SVG, renderer, or font-related issues early in the template development process.

The default Renderer and Print Format for the preview are specified in the Options, *Preview* (p. 71) tab.

The **Preview Messages** tab on the right displays any renderer warnings or error messages. When a PDF Form is converted to SVG, any messages generated by the pre-processor are also displayed. A second tab displays various Preview Options. For details, see *Preview Options* (p. 127).

Where the Form Image has multiple pages (such as when a multi-page PDF is converted to SVG), use the navigation tools to page through those pages.
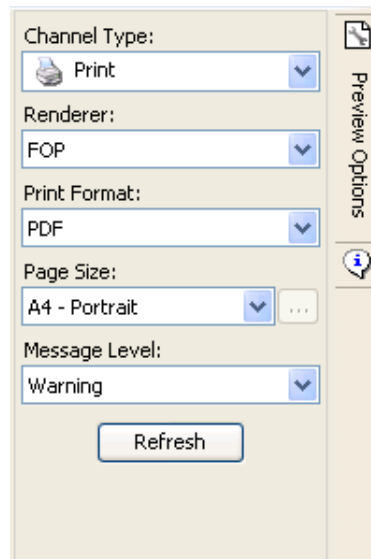

Use the zoom controls to resize the preview.

The divider between the preview and the **Preview Messages** frame can be dragged to adjust the width of the two frames.

Preview Options

The Overlay Form *Preview Options* frame is displayed within an Overlay Form preview. See *Preview* (p. 126) for details.

Channel Type

Select the Channel type, e.g. **Print** or **HTML**.

Renderer

Only applicable to Print channels. Select the type of renderer that will be used to generate the Preview. The options are FOP or XEP. If the XEP feature is enabled in the Thunderhead license XEP is the default, otherwise the default is FOP.

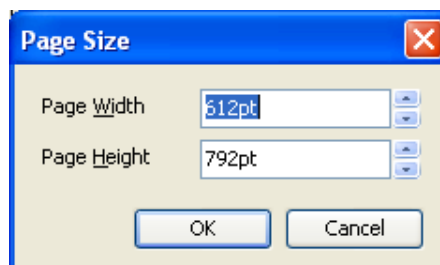### Print Format

PDF, PCL, AFP or TIFF.

Page Size

Either:

- Select the format of your intended documentation from the listed default options, e.g. **A4 – Portrait**, **Letter – Portrait**.
- Select **Custom** to specify an alternative page size. Click the ellipsis button that this activates to display the *Page Size* dialog, and there specify custom **Page Width** and **Page Height** values.

Message Level

Specify the level of messages that you want to see during previews. The options are:

- **Error** - Display only Error messages
- **Warning** - The default option: Display Warning and Error messages
- **Information** -   Display Information, Warning and Error messages.

Information messages display useful but non-urgent system messages other than System and Error messages. Warning messages indicate, for example, that a process has failed, or that an error will be generated if a specific problem is not resolved. Error messages indicate that an error has occurred, and identify the relevant Process and Status.

4.5.1.6   Copy Overlay Objects

This screen enables you to copy Overlay Objects, such as data fields, from any Document Template or Shared Content resource stored in the CMS.

To use this feature you must first select a Document Template or Shared Content Resource that contains an Overlay Form. Overlay Objects can then be copied from that Resource.

1. Select the **Copy Overlay Objects** checkbox.

   The *Open Resource* window is displayed

2. Select and open the appropriate Resource Version

   The **Resource** field is updated with the name and version number of the selected Resource Version.

   With a Resource Version currently selected the ellipsis button is activated, enabling you to select an alternative.

3. Click **Next** to progress to the next screen.

4.5.1.7   Copy Overlay Objects, Screen 2

Having selected an existing resource from which to copy Overlay Objects, this screen presents a comparison view of the two Forms, and allows you to copy some or all of the Overlay Objects from the existing Resource (displayed on the left) onto the new Overlay Form (displayed on the right).
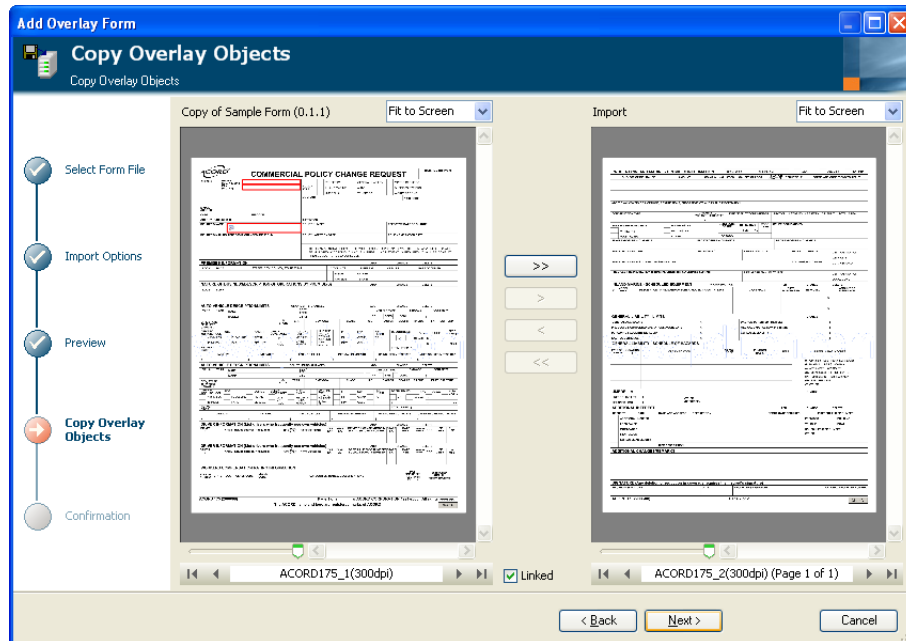
For both Form views you can:

- Use the standard vertical and horizontal scroll bars
- Use the drop-down control above each view to zoom in or out to a given percentage, Fit to Width or Fit to Screen
- Use the slide control beneath each view to adjust the opacity of the underlying Form image relative to the Overlay Objects
- Use the navigation buttons to move to different Overlay Forms within any Resource Version or imported Form that contains multiple pages.

Linked

If the **Linked** checkbox is selected your actions are applied to both Forms simultaneously.

>> | > | < | <<

You can copy one or more selected Overlay Objects from the existing Resource to the new Overlay Form. Multiple selection is allowed.

>> Copy all Overlay Objects from the existing resource to the new Overlay Form.

>   Copy the currently selected Overlay Objects from the existing resource to the new Overlay Form.

Likewise, you can remove selected Overlay Objects from the new Overlay Form.

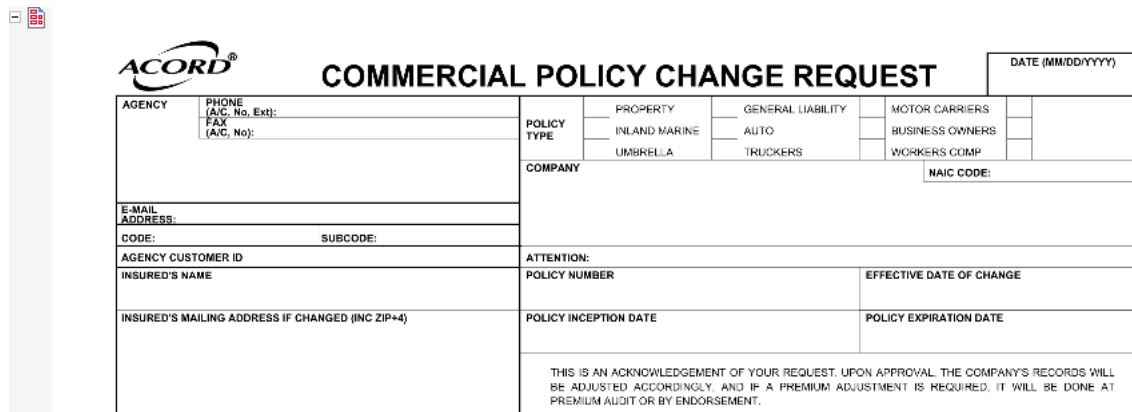**<**   Remove the currently selected Overlay Objects from the new Overlay Form

<< Remove all Overlay Objects from the new Overlay Form.

4.5.1.8   Confirmation

Having successfully completed the details required to add the Overlay Form to your Document Template this screen displays the confirmation message 'The Wizard is ready to import the form'.

Simply click **Finish** to add the Overlay Form to the Document Template.

The Overview Form image is displayed in a new tab (see *Overlay Designer* (p. 131)) for editing.

4.5.2 Overlay Forms in the Content Editor

Overlay Forms are represented in the *Content Editor* (p. 163) by labeled Overlay Form nodes.

When an Overlay Form is expanded in the Content Editor, any Overlay Objects are shown as red boxes.

Overlay Objects cannot be edited in the Content Editor. To edit Overlay Objects, either:

- Double-click either the Overlay Form node or anywhere within an expanded Overlay Form
- Right-click either the Overlay Form node or anywhere within an expanded Overlay Form to select **Edit Overlay Form**
- Press **F2**.

The Overlay Form is displayed in the *Overlay Designer* (p. 131).

4.5.3 Overlay Designer

An Overlay Form is displayed in the Overlay Designer when either:

• Added to a Document Template via the *Add Overlay Form* (p. 118) wizard

• Double-clicked, or accessed via the right-click **Edit Overlay Form** option in the *Content Editor* (p. 163).

The Overlay Designer is presented in a new tab. This allows you to switch easily between the Form, the Document Template or Shared Content, and any open Preview. The views are synchronized so that any updates made in the Overlay Designer are automatically reflected in the other tabs.

Drawing Overlay Objects

With the Overlay Designer in focus, an **Overlay** toolbar and **Overlay** menu give access to Overlay Object drawing tools. For details, see *Overlay Menu* (p. 44) and *Overlay Toolbar* (p. 36).

In order to select an Overlay Object so that it can move it, resize it or update its properties, select the **Selection** tool from the Overlay menu or toolbar.

A status bar at the bottom of the Overlay designer shows the x and y coordinates of any currently selected Overlay Object, and its Width and Height when it is either drawn or re-sized.

You can either draw Overlay Objects directly onto the Overlay Form or drag-and-drop existing objects onto the Form.

To draw an Overlay Object directly onto the Overlay Form:

1. Select the appropriate **Overlay** tool. The options are:
    ▪ Create Data Field Overlay Object
    ▪ Create Text Field Overlay Object
    ▪ Create Shared Content Overlay Object
    ▪ Create Dynamic Content Overlay Object
    For a brief description of each type, see *Overlay Objects* (p. 134).

2. Click, hold and drag to form the boundary of the desired Overlay Object

    Overlay Object boundaries are dashed black while being drawn, solid blue when selected for editing, and otherwise solid red by default, or as specified in the *Overlay Designer Options* (p. 73) tab.

3. Release the mouse button
    The properties of the new Overlay Object are displayed in the Properties frame (see *Overlay Object Properties* (p. 134)).

For drag-and-drop:

• Shared Content Objects can be dragged from the CMS explorer
• Data Field Objects can be dragged from the Business Object Tree.

The drop action will either create a new Overlay Object or update an existing Data Field or Shared Content.

Right-Click Options

Once created, Overlay Objects and Snap Lines can be manipulated via right-click menu options.

Icon	Option	Shortcut	Function
-	Align	-	Only available when two or more Drawing Objects are selected; this option aligns selected objects to the selected criteria. Lefts, Centers, Rights, Tops, Middles, Bottoms
-	Make Same Size	-	Only available when two or more Drawing Objects are selected. Resizes the selected criteria of all selected objects in line with the first selected. Width, Height, Both The first selected Object is indicated by a solid blue border; any additionally selected Objects are indicated by a broken blue border.
-	Spacing	-	Only available when three or more Drawing Objects are selected. Make Horizontal Spacing Equal, Make Vertical Spacing Equal
✂	Cut	Ctrl+X	Cut the selected Overlay Object or snap line.
📋	Copy	Ctrl+C	Copy the selected Overlay Object or snap line.
📋	Paste Here	-	Paste the selected Overlay Object or snap line at the current cursor position.
✕	Delete	Del	Delete the selected Overlay Object or snap line.
-	Properties	-	Displays the Properties of the Form or selected Overlay Object or snap line.

Some of these options can also be accessed via the *Overlay Menu* (p. 44) or *Overlay Toolbar* (p. 36).

For a full list of the keyboard shortcuts and mouse actions applicable to the Overlay Designer, see Shortcuts and Mouse Actions.

Ruler and Snap Lines

If the **Show Rulers** option is selected in the *Overlay Designer Options* (p. 73), the Overlay Designer features horizontal and vertical rulers along the top and left borders respectively. As you draw Overlay Objects you will see the x and y axis of the current cursor position indicated in each ruler.

To display Snap lines, click and hold anywhere in the appropriate ruler (e.g. the vertical ruler for vertical snap lines) and then drag the snap line to the desired position. Repeat the procedure to add further snap lines.

The X or Y axis co-ordinate of a selected snap line is displayed in the Properties frame.

A selected snap line can be repositioned either using the mouse (drag-and-drop), using the appropriate arrow keys, or by changing the X or Y property in the property grid.

A selected snap line can be deleted using the delete key.
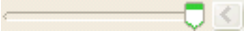
Zoom

The Overlay Designer view can be zoomed and scrolled using the mouse wheel, scroll bars, or toolbar zoom control.

Opacity

The opacity of the Overlay Form can be adjusted to improve the visibility of the Overlay Objects and snap lines. This does not affect the final output.

Opacity is controlled either:

- Via keyboard shortcuts: Ctrl+Shift++ to increase opacity, Ctrl+Shift+- to decrease opacity.
- Using the opacity slide control

Z-Order

When multiple Overlay Objects occupy the same space on the Overlay Form their Z-order is determined by their order in the Content Assembly Tree.

Content Assembly Tree

From within the Overlay Designer you can access a version of the *Content Assembly Tree* (p. 52) that is filtered to display only the Form and any Overlay Objects drawn upon it.

When a Form or Overlay Object node is selected in the Content Assembly Tree:

- The corresponding object is selected in the Form Designer
- Its Properties are displayed.

Within the Content Assembly Tree:

- The Cut, Copy, Paste, Delete and Properties right-click options (see above) are available on the nodes for Forms and Overlay Objects
- Forms can be repositioned.

Business Object Tree

The standard *Business Object Tree* (p. 55) is available within the Overlay Designer.

You can drag-and-drop a Data Item from the Business Object tree either onto the Overlay Form to add a new Field, or onto an existing Overlay Object to re-map it. When a Data Item is dropped onto an Overlay Object the dialog specific   to the data type (e.g. *Collection Data Item* (p. 235)) is displayed. Once the selected Data Item is inserted the Overlay Object's Properties (see *Overlay Object Properties* (p. 134)) are displayed, enabling you to edit them as necessary.

4.5.3.1   Overlay Objects

This topic briefly describes each type of Overlay Object that can be drawn onto an Overlay Form.

Data Field Overlay Object

Data Field Overlay Objects take single Thunderhead Data Items as values. Edit Groups can be defined for each Data Item in order to control which users can edit the Overlay Object's value from within a Review Case.

Text Field Overlay Object

Text Field Overlay Objects take Expressions as values. An Expression can be either a literal value or a value returned by a script.

Shared Content Overlay Object

Shared Content Overlay Objects allow any Shared Content (e.g. a company logo, header or footer, richly-formatted text, table content, or even another Form) to be overlaid on a Form. Variables can be passed to the Shared Content.

Shared Content Overlay Objects are linked to Overlay Forms much as Shared Content is linked to a Document Template, except that in Shared Content Overlay Objects, content is absolutely positioned and limited to a fixed area. You must take care that the Shared Content will fit within the bounds of the Overlay Object. Shared Content can, however, flow within the width of the Overlay Object.

Dynamic Content Overlay Object

Dynamic Content Overlay Objects allow Shared Content to be selected via a CMS query and then overlaid on a Form. Dynamic Content Overlay Objects might be used to include in a Form any variable content, e.g. a signature image, which will be specified by transaction data.

4.5.3.2   Overlay Object Properties

To view the properties of an Overlay Object, either:

- Double-click it
- Select it, right-click and select **Properties**
- With an Overlay Form open, click the *View toolbar* **Properties**   icon.

The object's properties are then displayed in a frame to the right of the *Overlay Designer* (p. 131).

Overlay Form Properties

When no Overlay Object is selected the properties of the Overlay Form are displayed.

- **Layout | Page Break Before Form** - Determines whether or not the Overlay Form is preceded by a page break. The options are **True** (page break inserted), **False** (no page break), or an expression that returns either True or False. True by default. To edit this property, click in the value field to activate an ellipsis button, then click the ellipsis to display the *Text Field* (p. 138) window.

  This property has no effect if you are using a XEP renderer. For details, see Limitations | *Output* (p. 141).

- **Misc | Name** - The name by which the Form is represented in a DDV or Shared Content. To edit this property, simply overtype the current value.

Snap Line Properties

- **Layout | X   or Y** - The X or Y co-ordinate of the currently selected vertical (X) or horizontal (Y) snap-line, expressed in points along the relevant axis. To change this property, either overtype the value or simply select and drag the snap line to a new position.

Overlay Object Properties

Display

- **Edit Groups** - The Groups with permission to edit the Overlay Object within a Review Case. To edit this property, click in the value field to activate an ellipsis button, then click the ellipsis to display the Edit Groups window.

  The availability of this option is dependent on the type of Overlay Object or Data Item selected. See Limitations | *Document Editor* (p. 140).

- **Text** - For Text field Overlay Objects only. The static text or Expression displayed in the Overlay Object. To edit this property, click the value field to activate an ellipsis button, then click the ellipsis to display the *Text Field* (p. 138) window.

Data Item - For Data Field Overlay Objects only. The data item displayed in the Overlay Object. To edit this property, click the value field to activate an ellipsis button, then click the ellipsis to display the Data Item window (see Add or Edit Data Item).

Shared Content - For Shared Content Overlay Objects only. The shared content displayed in the Overlay Object. To edit this property, click the value field to activate an ellipsis button, then click the ellipsis to display the Shared Content window (see *Link to Shared Content* (p. 203)).

Dynamic Content - For Dynamic Content Overlay Objects only. The dynamic shared content displayed in the Overlay Object. To edit this property, click the value field to activate an ellipsis button, then click the ellipsis to display the Dynamic Content wizard (see *Dynamic Content Link* (p. 456)).

- **Visible** - Determines whether or not the Overlay Object is visible in the final output. This property can usually takes a True/False value, where **True** means 'visible' and **False** 'not visible'. The default is True. Alternatively, the value can be an Expression. To edit this property, click in the value field to activate an ellipsis button, then click the ellipsis to display the *Text Field* (p. 138) window. To specify an Expression, you must then click the drop-down to display the Logic Builder in Basic Mode (see *Add or Edit Logic - Basic Mode* (p. 229)).

Format

- **Borders and Shading** - The Overlay Object's borders and shading. Click the value field to activate an ellipsis button, then click the ellipsis to display the *Borders and Shading* (p. 270) window.
- **Overflow Treatment**   - The Overlay Object's behavior when content overflows the Overlay Object area:
  - **none** - Default. Content overflowing the Overlay Object area will cause a warning and content will be clipped
  - **error** - Content overflowing the Overlay Object area will cause a warning and content will be clipped (same as **none**)
  - **scroll** - Adds a scrollbar to the right-hand side of the Overlay Object area in the output, allowing the user to scroll through all of the content. However, when using the **scroll** option, you are limited to a plain un-styled single line of text as the content.
- **Style** - The Overlay Object's paragraph style. Click in the value field to activate a drop-down from which to select a Style, as in the Style Editor (see *Apply Styles* (p. 183)).
- **Text Alignment** - The Overlay Object's horizontal text alignment. Click the value field to activate a drop-down from which to select the correct alignment, left, right, or center.
- **Vertical Alignment** - The Overlay Object's vertical text alignment. To edit this property, click the value field to activate a drop-down from which to select the correct alignment, top, middle, or bottom.

This property has no effect in HTML output.

Layout

To edit any Layout property, simply overtype the current value.

- **Height** - The height of the Overlay Object.
- **Width** - The width of the Overlay Object.
- **X** - The X co-ordinate of the top left point of the Overlay Object.
- **Y** - The Y co-ordinate of the top left point of the Overlay Object.

4.5.3.3   Shortcuts and Mouse Actions

The following table itemizes all of the keyboard shortcuts and mouse actions that can be used in the *Overlay Designer* (p. 131).

Modifier	Shortcut	Mouse Action	Result
Ctrl	Left	-	Scroll Left
Ctrl	Right	-	Scroll Right
Ctrl	Up	-	Scroll Up

Modifier	Shortcut	Mouse Action	Result
Ctrl	Down	-	Scroll Down
-	Mouse Wheel Up	-	Scroll Up
-	Mouse Wheel Down	-	Scroll Down
Shift	Mouse Wheel Up	-	Scroll Left
Shift	Mouse Wheel Down	-	Scroll Right
Ctrl	+	-	Zoom In
Ctrl	-	-	Zoom Out
Ctrl	Mouse Wheel Up	-	Zoom In
Ctrl	Mouse Wheel Down	-	Zoom Out
-	Escape	-	Cancel Selection/Draw/Move
-	Delete	-	Delete Selected Objects/Selected Snap Line
-	Left	-	Move Selected Objects/Selected Snap Line Left
-	Right	-	Move Selected Objects/Selected Snap Line Right
-	Up	-	Move Selected Objects/Selected Snap Line Up
-	Down	-	Move Selected Objects/Selected Snap Line Down
Shift	Left	-	Grow Selected Objects Left
Shift	Right	-	Grow Selected Objects Right
Shift	Up	-	Grow Selected Objects Up
Shift	Down	-	Grow Selected Objects Down
-	Tab	-	Select Next Object
Shift	Tab	-	Select Previous Object
Ctrl	A	-	Select All Objects
-	-	Select Object	Select Just That Object
Ctrl	-	Select Object	Additionally Select That Object
-	-	Move Selected Object	Move Selected Objects
Ctrl	-	Move Selected Object	Copy Selected Objects
-	-	Size Selected Object	Size Selected Objects
Ctrl	-	Size Selected Object	Size Selected Objects Keeping Ratio
Shift	-	Size Selected Object	Size Selected Objects Keeping Ratio
-	-	Click Horizontal Ruler And Drag Onto Canvas	Create New Horizontal Snap Line
-	-	Click Vertical Ruler And Drag Onto Canvas	Create New Vertical Snap Line
Ctrl + Shift	+	-	Increase Image Opacity

Modifier	Shortcut	Mouse Action	Result
Ctrl + Shift	-	-	Decrease Image Opacity
-	-	Drag Data Item Onto Canvas	Create New Data Field Object
-	-	Drag Data Item Onto Existing Data Field Object	Change Data Field Object To New Data Item
-	-	Drag Shared Content Onto Canvas	Create New Shared Content Object
-	-	Drag Shared Content Onto Existing Shared Content Object	Change Shared Content Object To New Shared Content
Ctrl	C	-	Copy Selected Objects
Ctrl	X	-	Cut Selected Objects
Ctrl	V	-	Paste Selected Objects
Ctrl	Z	-	Undo Previous Action
Ctrl	Y	-	Redo Previous Action

4.5.3.4   Text Field

This window is accessed from the Overlay Form Editor when creating a Text Field Overlay Object (for details, see *Overlay Designer* (p. 131)).
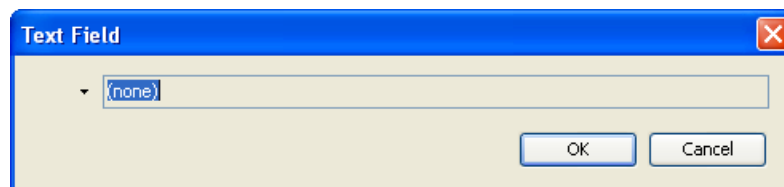
Text

Activates a free text field and an associated ellipsis button which, when clicked, displays the *Select Data Item* (p. 83) window.

Number

Activates a free text field populated with the figure 0 (zero). This default value can be overtyped. Alternatively, use the scroll control to increment the number.

Date/Time

Activates a 'date format' field in the format dd Mmmm YYYY, populated with the current date. You can overtype the day and year values. Alternatively, click the drop-down control to pick a date from a calendar.

True or False

Activates a checkbox. If the checkbox selected the Text value is 'True', otherwise it is 'False'.

Expression

Displays the Logic Builder in Advanced Mode (for details see *Add or Edit Logic - Advanced Mode* (p. 233)).

OK

When you click **OK** the properties you have defined for the Text Field are displayed in a Properties frame to the right of the Overlay Designer.

4.5.4 Limitations

This section describes known limitations to the *Overlay Forms* (p. 118) functionality in Thunderhead.

4.5.4.1   Memory

Processing large images may result in Out of Memory errors on the Thunderhead Server and client modules. In this event:

• Change your images to bitonal (black and white)

• Encode your images to CCITT Group 3 compression.

This will make the images smaller and reduce memory usage.

You can also increase the Java Heap memory, or the client's PC memory on 64-bit clients, to accommodate larger images.

4.5.4.2   PDFs Containing XFA Forms

Thunderhead does not support the import of PDFs that contain Adobe's XML Forms Architecture (XFA) forms via an Overlay Form

4.5.4.3   Channel Output

The following table describes the support for each image format within each Thunderhead output Channel.

Check your Renderer's documentation for details of its support for the attributes and encoding of the following base image formats.

Key

+   Supported

x   Not supported

a   Supported by FOP. Limited support by XEP

b   Supported by FOP. Not supported by XEP.
         See *PDF Overlays and Dynamic URLs in Non-PDF Outputs* (p. 140)

Output Channel		Tiff	PNG	JPEG	SVG	PDF
HTML		x	+	+	x	x
Text		x	x	x	x	x
SMS		x	x	x	x	x
XSL:FO		+	+	+	+	+
XML		x	x	x	x	x
TML		+	+	+	+	+
Print	AFP	+	+	+	a	x
	PCL	x	x	+	x	x
	PostScript	+	+	+	+	x
	PDF	+	+	+	+	+
	XML	x	x	x	x	x

WordML	x	x	x	x	x

Overlay Forms are not supported in any Channel other than those listed in the table. Overlay Forms in any other Channel will be dropped from the output without warning. You are advised to check your output before releasing your templates into a Production system.

4.5.4.4   PDF Overlays and Dynamic URLs in Non-PDF Outputs

We recommend that you do not generate Postscript output when using PDF Overlays or when importing PDF via Dynamic URL.

This is because:

1. Not all PDF features will be completely supported. For details of PDF features that are not supported see *Limitations* (p. 139) (the same technology is used to convert the PDF within a Postscript stream).
2. Performance of larger Print streams may be adversely affected because the PDFs are not converted to equivalent Postscript commands but are instead rasterized. This can increase the size of the Postscript stream and cause resource issues on Printers for larger Postscript streams containing many such imported PDF files.

4.5.4.5   Document Editor Control

Shared Content objects and Dynamic Shared Content objects cannot be edited in the Document Editor.

Data Fields that are linked to the following types of Data Item cannot be edited in the Document Editor. For these Data Fields the **Edit Groups** option (see Select Edit Groups) is removed from Business Content Studio when editing the Overlay Form.

- Private - Not displayed in the Business Object Tree. See Business Object Property Details for details.
- Object - Cannot be inserted or dropped onto the Overlay Form.
- Length (Number of...)
- Document Level Script Variables
- System Functions.

Overlay Forms within Shared Content that is placed inline within another resource are not fully supported within the Document Editor (Correspond NOW) module. The Overlay background will be drawn, but the Overlay fields will not be visible and it is not possible to modify their content. However, the Overlay Forms will appear correctly in the finalized document.

4.5.4.6   Overlay Designer

Rounding

The following rounding variations may be apparent in the *Overlay Designer* (p. 131) but are not noticeable on output.

The Overlay Designer uses GDI+ to draw Overlay Objects. GDI+ draws in whole pixels, so conversion from measurements specified in the object properties can result in apparent minor variations in the placement of Overlay Objects. Likewise, when an Overlay Object is created or moved its position is captured in pixels and converted to the default units specified by the user. In conversion, despite the rounding that takes place, not all values are available. For example, with the default units set to centimeters, an object can only be created at 2.01cm and not 2cm.

Form Fidelity

In order to draw Overlay Objects onto an Overlay Form, any imported PDF or SVG form image must be converted to an alternative format. The conversion does not affect the final output, but may result in slight differences between what is seen in the Overlay Designer and what is produced as final output.

Heading Styles

Any Heading styles that are applied via the Overlay Object Properties of either Shared Content Overlay Objects or Dynamic Content Overlay Objects are ignored.

Shared Content can contain complex structures rather than a single heading line. If you want to derive headings from Shared Content you must apply the heading styles within the Shared Content.

Type 0 Fonts

Type 0 Fonts are not supported.

Spot Colors

Spot Colors are not supported in PDF Overlay.

Where an Overlay is imported as PDF, any images using Spot Colors will be drawn incorrectly in the Overlay designer.

This issue does not affect other formats, i.e. Spot Colors are supported in TIFF, TIF, JPG, JPEG, PNG, and SVG.

Tagged PDF

PDF files may be tagged with structural information to enable better accessibility. PDF tagging is not supported on output.

XFA

Adobe defines two types of interactive forms; AcroForms and XFA. Currently we support AcroForms but not XFA.

AcroForms

When a PDF contains JavaScript that operates on Adobe's AcroForms technology, we cannot guarantee the script will be operable in the generated PDF. This is because it is not possible to rewrite the script to handle changes in names of Fields or Objects. Sometimes we have to change the names of Objects or Fields because they clash with other resources in other PDFs being imported.

4.5.4.7   Output

Overlay Object Overflow

FOP and XEP handle the `error-if-overflow` attribute that is applied to the `fo:block-container` in Print output channels in different ways.

FOP produces an error or, if a word does not fit within the width of the container, a warning message.

With XEP, any lines that are not contained completely (i.e. with a little padding) are removed. This generates a warning. If a word does not fit within the width of the container it is squashed onto the line. In such cases no warning is displayed.

Overlay Image Overflow

With FOP, if an image is too tall for a page, but not too wide, then no warning is produced.   This is a recognized bug in FOP and has been raised. In XEP a warning is issued.

Images in HTML Output

When raster images are used in HTML output, the DPI of the image should be set to 96dpi (or the most common screen DPI setting of your audience), otherwise the browser will not display the image clearly.

Shared Content

Shared Content containing Choice Lists is not supported when added as either a Shared Content Overlay Object or a Dynamic Content Overlay Object in either Batch or Review Case processing.

Property Restrictions

*   The **Vertical Alignment** property (see *Overlay Object Properties* (p. 134)) has no effect in HTML output.
*   The **Page Break Before Form** property does not work with XEP, though it is still available in Business Content Studio. With XEP, Overlay Objects will be incorrectly positioned.

4.5.4.8   PDF 1.5 and 1.6 Support

4.5.4.9   The PDF library used to import PDFs into Thunderhead supports PDF 1.5 and 1.6.

4.5.4.10   PDF 1.5 Support

The following PDF 1.5 features are **not** supported when importing into Thunderhead:

*   Support for JPEG2000 compression of image data
*   Support for 16bit images
*   Additional encryption features such as crypt filters and syntax for public-key security handlers
*   Improved compression through extensions that allow object and cross-reference streams
*   Predefined CMap objects and character collections
*   Enhancements to interactive presentations, i.e. Sub-page Navigation
*   Additional annotation types and additions to annotations
*   Enhancements to iPDF (interactive forms), including support for forms based on Adobe's XML Forms Architecture (XFA)
*   Enhancements to digital signatures
*   Enhanced support for the embedding and playback of multimedia data
*   Capability to display PDF slideshows
*   Enhancements to Tagged PDF and accessibility features.

4.5.4.11   PDF 1.6 Support

The following PDF 1.6 features are **not** supported by Thunderhead:

- Optional content group management
- User units
- NChannel color spaces
- Embedded to-go actions
- User properties
- Measurement properties
- Encryptions enhancement
- Additions to digital signatures
- Accessibility properties added to 1.6