Tips for Designing Templates for PrintUI

PrintUI is all about marrying the power of InDesign with a friendly way for end users to make their own customizations using an editor embedded within any web page. Templates are simply InDesign documents in which you specify which layers and frames are customizable by your end users.

After you have downloaded and installed the PrintUI extension for InDesign CS5 or later, here are the steps for creating a template from any InDesign document:

1. Review the sections below to make sure that they won't pose a problem for your document. You many also want to review the other documentation for designers found on https://printui.com/developer .
2. Note that the name of the template will be the same as the name of your document except that spaces and non-alphanumeric characters in the file name will be converted to underbars.
3. While editing your document in InDesign, log into the PrintUI Management panel by opening the fly-out menu from the upper right corner, and then click on *Initialize Template*. This will make some changes to your document to ensure compatibility with the PrintUI cloud service. The most visible change will be the creation of a Background layer in your document.
4. Move the layers and objects that you want to be fixed and not editable by the end user into the Background layer.
5. Lock any objects or layers that you do not want the user to be able to move or expand.
6. Preflight the document using the management panel. Correct any issues. If you get strange error messages such as "User canceled this action" it means that InDesign had some problem packaging your document but returned a response that isn't helpful in narrowing down the problem. If that happens, try the steps in the *Troubleshooting* section at the end of this document.
7. Use the management panel to upload the template to the PrintUI cloud.
8. Although you should be prompted to upload fonts used by your document while it uploads, you may also upload fonts manually. (If the font already is on the server, you won't be prompted, though.) For example, you may want to upload additional styles within the font family (i.e. italic or bold) to allow the user to select them while customizing. Be sure that you have a license to use the fonts on a server and the license permits embedding them within PDFs.
9. Test your template by using your web browser to go to https://printui.com/private-demo.php. Be sure to download a PDF to make sure there are no embedding issues for the fonts.

Template Management

PrintUI allows for management of templates directly within InDesign. This makes for a very smooth workflow for template creation and management. The PrintUI Management panel allows for uploading of templates up to the number allowed for your account's license.

Preflight

As part of the upload process, the PrintUI panel preflights and packages the template for use on the server. *Preflight* and *Package* can each be done separately, but it's not necessary as the upload will preflight and package automatically. Documents which don't pass preflight cannot be uploaded, so any errors encountered during preflight must be fixed. If preflight fails, the Management panel will bring up a dialog to assist in fixing errors.

Upload

Once a template is error free, it can be uploaded. Before you can upload a template you must log into your PrintUI account. To log in, use the panel fly-out menu and select *Enter Login Credentials*. Once the credentials are entered once, an encrypted token will be saved on your computer to allow automatic login when the panel is opened at a later time. (Your password is not saved at all to ensure the highest level of security.) If you don't want automatic login, you must log out before closing the panel.

To upload a template, open it in InDesign and click *Upload*. As part of the upload process, the panel will check that all fonts exist on the server. If a font is missing, you will be prompted to automatically upload the missing fonts. If the font upload is successful, the new fonts will appear in your font list. If the font upload fails, you will need to upload them separately using the management panel before you will be able to use your template.

If you get preflight errors, please see the *Troubleshooting* section below for some ideas.

Other Options

If you click on the *Templates* button, you will see a list of all the templates currently available for use in your account. You will see three buttons for management of the templates:

1. *Download Template* Click download if you need to change something or to make a new derivative template from an existing template and it's not currently on your local machine.

2. *Test Template* After you upload a template, we highly recommend that you test it to make sure everything works as expected. We do our best to ensure that the system is bug-free, but there are so many variables with complex documents that we can't be sure that you will not encounter unexpected issues. If you think you have found a bug, please make sure to let us know so we can address it!

   The test button opens the "private-demo" web page in your browser. You will need to log in, and select the template you need to test. (We do not currently automatically preload the selected template in the browser.)

3. *Remove Template* Use this option with care! If you remove a template from the server that has customizations made by end users (i.e. their jobs), all of their customized files will be lost! There will be no way of retrieving them, so make sure you fully understand the implications of removing a template before you do so.

Updating Templates

As mentioned above, if you remove a template you will also delete all of the customized jobs that had previously been created by your end users. So if you want to update a template, you should never first remove it before uploading the new version. Instead you should simply upload the new version using the same name as the old template. However, you must follow certain guidelines in order for the existing jobs to work properly:

- The revised document size must be exactly the same size as the old template. And the units (inches, picas, centimeters) must also be the same.
- You must keep the same text and image frames as were in the old template.
- You can change the Background and other non-editable layers as much as you want.

If you want to be very careful that you aren't going to affect any of the existing customized jobs for the template, though, you are better off uploading your new version of the template with a new name and leaving the old one alone.

Run-Time Options

There are many options that a developer can control within the code that loads the PrintUI web editor. You will see references to specific options in the sections further in this document. You can find the complete list of available run-time options for specific PrintUI editors in documentation available at https://printui.com/developer. These options cannot be specified by the person designing a template, though. The designer must work with their site developer to implement them.

Some examples of options that can be invoked at the time that the web editor is launched within your web page:

- Setting allowUpload to false disables the "Upload" button. This prevents end users from upload their own images to a document.
- Ssetting allowNewText to false disables the "New Text" button to prevent end users from adding new text frames. They are still able to edit text within an existing frame, though.
- Setting showTextPalette to false prevents the text editing options from showing to prevent the user from changing text styling.

- Setting locale to some language code (e.g. “es_MX” for Mexican Spanish) can be set to load a localized user interface. The default locale is US English. An “admin” API can be used by a developer to get the complete list of available APIs. New locales will be added based on demand.

Layers

By default your initialized template will always include a Background layer and at least one other layer for editable objects. In InDesign CS6 and later you will have the option to also include several other special layers:

- A Foreground layer should be used when you need to put non-editable objects that need to be in front of other objects in the stacking order.
- Non-Printing Foreground and Non-Printing Background layers can be used to add reference guides or instructive notes. They appear to the user in the editor but are not present in the final output. They are called Foreground No Print and Background No Print in InDesign’s Layers panel.
- An Imposition layer is used when creating a special template that is used to place several other templates on a single page. For example, you may want to print many business cards on a large sheet of paper. Please see the separate *Imposing Documents Using PrintUI* documentation for more details.
- An HTML layer is used when creating templates that will be output as HTML files for the web. Please see the separate *Tips for Designing Templates for HTML* documentation for more details.

Layers with other names are considered to be editable layers. You may add as many as you need and arrange them anyway you like. For best results the Background layers should always be at the bottom of the InDesign Layers panel, and the Foreground layers should be at the top.

InDesign has been known to rearrange the editable layers on occasion. If you find that the editor is displaying the layers wrong, you may need to put all of your objects into a single layer.

Objects on the non-printing layers may obscure editable objects on lower layers in the editor. Don't fill the page with a [Paper]-colored frame, for example, on the Foreground No Print layer because it will cover the other layers. Instead, make the page background transparent. One way that you can do that is to click the Template Options button in the PrintUI Management panel and then check the Transparent Background box. This will remove the standard white page background from the editor and it may make it difficult for your users to see frames so it is also recommended that you also add a full-page [Paper]-filled frame to the bottom of the stack on the Background No Print layer to replace the standard white background.

Note that gradient fills are not supported for objects in editable layers, but they are supported in the Background and Foreground layers.

Images

When you are designing your templates, you can substantially improve the performance of your templates by avoiding certain issues with images.

In general, there is no benefit to using huge images—images that are much larger than the area where they are placed. For templates designed to be output on a printing press, images should be 200 to 300 dpi at the size that matches their placement on the page. For example, let's say that you have a template designed at 8.5 by 11 inches and you have an image that is used to fill the entire page background. At 300 dpi, the image should be no larger than 2550 (8.5 x 300) by 3300 (11 x 300) pixels. If the image is to be placed on only a quarter of the page, 4.25 by 5.5 inches, the size should be no larger than 1275 by 1650 pixels at 300 dpi.

You can require that the images that are in your template meet a minimum resolution. In the PrintUI Management panel in InDesign, click on Setup and then Template Options where you will see Preflight Options. Change those values to whatever makes sense for your final high-resolution, print output.

Note that you can also specify the minimum resolution for images that your end users upload into the template by using the imagePpiLimit run-time option at the time that the web editor is launched within your web page. Use the limitImageResize run-time option to enable it.

There is one additional run-time option called placeImagesFullSize that might be useful. When images are changed by your users, they are normally fit to the frame. By using placeImagesFullSize the new images will instead be placed at full size. This is useful for templates where the frame has been designed for images of a specific size.

You should avoid uncompressed images, such as uncompressed TIFF, BMP, or many PSD files, because they can take a large amount of disk space and they also take longer to be uploaded or downloaded over the Internet. JPEG images are preferred because they tend to have the highest compression. And once an image is printed on paper, it is extremely difficult for someone to discern any artifacts caused by compression as long as the JPEG has been sized properly at 200 to 300 dpi and saved at a high quality level for the compression.

Although InDesign does support vector images, such as EPS, AI, and PDF images, these types of images can sometimes execute very slowly depending on their complexity. The problem is that you can't really tell by looking at it how long it will take. Something that may look fairly simple on your screen might actually be very complex in nature. And an overly complex image can cause your jobs to time out when it comes time to download the final high-resolution JPEG or PDF. To avoid this issue, we recommend that you convert your vector images into either JPEG or PNG images. JPEG images are preferable because they compress better than PNG. But if your image has any transparency, you must use PNG. You should size the JPEG or PNG using guidance provided in the paragraph above.

Full-Page Backgrounds

Any non-text object (e.g. images or rectangles) can be tagged as a “Replaceable Background” using the PrintUI Frame Options or PrintUI Tags panel, depending on which version of InDesign you are using. There can be a single replaceable background per spread. It is important to note that the replaceable background **must be on an editable layer** for it to work. It should **not** be on one of the special non-editable layers such as the Background or Foreground layers. If an object is labeled as a replaceable background, an additional button will appear in the web editor app to replace the background. The background object will otherwise not be selectable or editable.

If the replaceable background is an image, the Image Gallery Browser will pop up to allow replacing the image. Note that if you have your own image galleries that you can use a run-time option to specify a separate gallery URL for background images. If the replaceable background is an object such as a rectangle, a color picker pops up to allow color replacement.

Fonts

In addition to a standard set of fonts available for use by any template (see the *PrintUI Built-In Fonts* documentation), PrintUI supports uploading custom fonts to the system. Each client's fonts are specific to their account and will not conflict with other clients' fonts. Fonts can be managed directly from the PrintUI Management panel in InDesign. To manage your fonts, click on the Fonts button. The panel allows for three font related actions:

1. *Upload Font* Allows you to select a font file to be uploaded to the PrintUI cloud for use with the system. As soon as it's uploaded, it can be used in templates.
2. *Remove Font* Allows for the removal of a previously uploaded font. Be very careful with the use of this action. If the font has been used by a template, the template will no longer render correctly once the font has been removed.
3. *Download Font* Allows for downloading of a font previously uploaded to the system for use on your local machine.

Please read the following guidelines for uploading and using custom fonts:

1. It is your responsibility to ensure that you have the correct license to be using your fonts on the system. Generally, font developers require a license which allows embedding the fonts as well as a special server license.
2. Only Windows TrueType and OpenType fonts are supported. Postscript fonts, pre Mac OSX TrueType fonts, Mac "dfont" TrueType fonts, Multiple Master fonts and the like are not supported. If you use one of these fonts in your document it should fail preflight.
3. It can be very easy to include Adobe Fonts in your document. Unfortunately, Adobe’s license does not permit those fonts to be uploaded to the PrintUI servers. If you see “unknown” font problems in the preflight results,

the document is most likely using Adobe Fonts. However, many of the Adobe Fonts are actually open source fonts available for free from Google Fonts to download and install on your computer. Please see the Adobe Fonts section below for more details.

4. The fonts must be embeddable within PDF files. If they aren't, you will get an error message. (Fonts are marked inside the font file to indicate whether they are embeddable or not.)

The fonts that will be shown in the font dropdown menu within the editor for your template are a combination of any "base fonts" as well as any font shown when you use Type/Find/Replace Font within InDesign. Base fonts are defined at https://admin.w2p-tools.com. These are fonts that you would like to show to all of your end users for every template. Note, though, that you shouldn't specify a large number of base fonts because the editor's performance will suffer as it loads them all when the editor is first loaded.

Another way that you can show additional fonts in the font dropdown menu is to create an off-page text frame where you put multiple lines of text, each with their own font. Because it is off-page, it will not appear in the editor, but the fonts will be included when you use Type/Find Font within InDesign. The advantage of this method is that the font list is specific to that particular template.

Adobe Fonts

As mentioned above, Adobe's license does not permit us to upload any of the Adobe Fonts to the PrintUI servers. If you find that some Adobe Fonts have crept into your document (very easy to do), this is what we recommend that you do:

- Close InDesign.
- Turn off Adobe Fonts in the Creative Cloud Desktop.
- Many of the Adobe Fonts are available for free from Google Fonts. You should download the fonts you want to use and install them into your operating system. If the fonts are not available at Google Fonts, you'll have to find them elsewhere.
- Start InDesign.
- Use Type/Find and Replace in InDesign to replace all of the Adobe Fonts with the fonts that you installed.

Styles

It is always good practice in InDesign to work with defined paragraph and character styles, whether or not these styles are exposed to your users in the PrintUI editor.

For many types of templates the default Fonts palette can be used in the editor. This allows the user great flexibility in formatting their text by choosing from the list of fonts you make available. The user can change font size, color, and other attributes. When using the Fonts palette your users are not exposed to your defined styles.

There are cases, however, particularly where it is desirable to strictly control branding requirements and corporate identity, when you may wish to limit your users to selecting styles instead of selecting arbitrary fonts. The useStylePalette run-time option can be used to enable this feature.

When the Styles palette is enabled your users will be presented with dropdowns for both paragraph styles and character styles, similar to using those panels in InDesign. Only your predefined styles will be available so it is vital that you anticipate any possible formatting and include it as a style definition in the template when you upload, even if no text is actually assigned that style. It is good practice to name these styles in a way that their use will be obvious to an inexperienced user.

Facing Pages

The PrintUI editor does not support facing-page spreads. You may try designing as facing pages, but the spread will be split apart and your users will see single pages. Sometimes you will get a preflight error when you upload the template if the facing pages cannot be separated, such as when you have images or text frames that span the center of the facing spreads. If you need to span images or text you can, in theory, create them as two objects that meet at the spine, but this should be limited to objects your users will not edit. It is much better to remove any facing page spreads.

Groups

Grouped objects are automatically ungrouped during the packaging stage of your template upload. So while you may use groups for your own convenience while building your layout, if the group is on an editable layer your users will see all of the group members as individual objects, each with its own editing controls. For objects that are stacked or tightly packed this can create a cluttered and confusing template and it can become extremely difficult for your users to select the correct object to edit.

In many cases you can eliminate groups and stacked frames. For text against a colored background you may be able to simply use a text frame with appropriate insets and a colored fill. For more complex groups consider whether they should be replaced by a linked graphic of some sort so that they become a single object in the editor. *Objects that do not require user editability should always be placed on either the Background or Foreground layer.*

Guides, Grids and Snapping

InDesign's ruler guides and grids do not transfer to the PrintUI editor. Guides can be added by the use of a run-time options when the editor is loaded from your website, or you can draw your own guides using InDesign's drawing tools on the optional Foreground No Print or Background No Print layers. All guides in the PrintUI editor are visual clues only. *Snapping is not supported in the PrintUI editor.*

Text Wrap

Text wrap is supported only on non-editable layers (Background or Foreground). On editable layers text frames will be set to "Ignore Text Wrap" during the preflight routine.

The PrintUI editor uses a single-line composer for text wrap. However, InDesign has two sets of composers. It has a single-line composer which composes line after line, and it has a paragraph composer which analyzes the entire paragraph. The paragraph composer can occasionally cause lines to break in different spots than they do with the single-line composer. But the single-line composer isn't enforced by PrintUI in InDesign, so if the designer uses the paragraph composer, that's what InDesign will render. Usually this isn't an issue, but if the line breaks don't look right in the PrintUI editor, the default composer should be changed in InDesign under Edit/Preferences/Advanced Type.

Color

It is recommended that you define colors as RGB or allow PrintUI to convert them to RGB during packaging (this is the default behavior). RGB colors will look better in the editor because your screen uses RGB. In addition, RGB colors will generally look better than CMYK colors when printed because modern prepress workflows will optimally convert RGB to specific CMYK for the target printing press. If you are targeting one and only one printing press and you must use CMYK, you should click on the Template Options button and then uncheck Convert Colors to RGB.

Please redefine spot colors by opening the swatch definition dialog and changing the Color Mode from the color book name to RGB or CMYK. The PrintUI editor does not support other color spaces such as LAB. Note that the spot colors will continue to output as spot plates.

Your site can use the showDefaultColors run-time option to specify whether lots of default colors can be selected by the end user, or whether the available colors should be limited to those found in the document. If the latter, and you want to allow the user to select additional colors, you can create an off-page but empty text frame that uses additional colors.

You may also control the color space in PDFs generated by the PrintUI servers by using a PDF preset. If your preset requires an ICC Color Profile that is not already installed on the server, please contact support@printui.com for assistance. Please see the *PrintUI Built-In Color Profiles* documentation for a list of built-in color profiles. Please see the *PDF Presets* section below for more details on how to create custom presets.

Transparency and Masking

PrintUI supports all transparency, transparency effects, and blending modes for output, but due to the differences in technology required for rendering them in the online editors there can be some degree of unpredictability in how your use of they will render on screen in the editor. The reason for this is that the foreground layers are flattened for displaying in the editor. But since some objects can have blend modes and others not, it's not a binary yes or no on whether the effects will display correctly for the whole layer. If you need non-editable objects with blend modes in the foreground layers, you can use the Frame Options panel to mark the object as "non-selectable" and keep it on the

editable layer. If you want to prevent an object from outputting, you can use the “Attributes” panel in InDesign to mark it as “Nonprinting. “

Final output should match the original InDesign document and not necessarily how it renders in the web editor. Please check your template to be sure the rendering is satisfactory and the output is what you expect (though there is little you can do short of changing the design if it is not).

InDesign allows you to place an object, or group of objects on the pasteboard, then "paste into" another frame which is a common masking technique. This is not supported in PrintUI, though it may work for objects on non-editable layers such as the Background or Foreground layers. Test your templates to verify.

Line Objects, Polygons, and Stroke Styles

Line objects (straight paths with only one segment, typically drawn with the Line tool) are not supported as editable objects. They can be used on the Background or Foreground layers. Polygons are supported on all layers, so a line could be replaced with a very narrow rectangle that is two pixels wide. Stroke styles may be used on objects on the Foreground or Background layers, but are not supported on editable objects.

Curved paths drawn with the Pen tool will be rendered in the PrintUI editor as closed paths, but should output as drawn.

While polygons and drawn shapes are supported as filled shapes, they cannot be used as text frames. Non-rectangular text frames will be converted to rectangles.

Text Ornamentations

Underline is fully supported except that underlines will always be set to Text Color (but also see discussion of styles, below). Paragraph Rules and Strikethrough may be used for text on the Background or Foreground layers.

Strokes on text are not supported and will be removed during upload. Text on a path is also not supported.

Anchored Objects

Anchored objects of all types are unsupported.

Track Changes

Track Changes is not supported. Using it will change the internal structure of the InDesign document in such a way that the InDesign will not be able to find anything that is editable.

Bullets and Numbering

Lists that use automatic bullets or numbering are supported through the use of paragraph styles that include a bullet or numbering attribute. This attribute is preserved while editing as long as at least one original character remains in the paragraph, but as this is unpredictable and unreliable when users are inexperienced it is recommended that if you need lists in your templates you consider using a styles-based template (see below).

Manual numbering and bullets are always possible using the keyboard. If your users will need to enter bullets manually, they can click on the Glyph button on the text panel while editing and select a bullet character from the list.

While the use of any glyph as a bullet is supported by InDesign, glyphs other than those at Unicode 2022 [Bullet] (typically from dingbat fonts or other ornaments) may not render correctly and you should test your template if you use one of these glyphs. One possible workaround if you have difficulty with your chosen glyph is to create a custom font with the desired glyph positioned at Unicode 2022 and apply a character style to assign that font.

You may also have good luck using glyphs at Unicode 23F9 (large square bullet) and 23FA (large round bullet).

Tables

To use tables in PrintUI, all you need to do is create tables in InDesign. Rows and columns can be added and removed in the web editor, and cells and content can be styled using cell styles.

Note that there are some restrictions:

- The display of tables in the PrintUI editor will not show patterned fills such as alternate column or row fills. We allow this formatting to render in InDesign Server, but it will not show in the PrintUI editor. To allow such formatting to show in the web editor, the formatting needs to be applied directly to the cells.
- Column width is fixed. There's currently no way to change the column width in the PrintUI editor.
- Changes to the table structure and formatting can only be done using the "Styles" palette. If you need to edit the table structure or formatting, the styles palette must be the palette used for the document.
- All styling of cells must be done using cell styles.
- Merged cells are permitted for spanning columns, but not for spanning rows.
- It is not possible to add or remove columns within tables that have merged cells.
- There is no way to add new tables within the web editor.

Page Management - Add/Delete/Move Pages

Once page management is enabled, the end user will see a dropdown menu next to each page thumbnail. The dropdown will let them:

- Add a page before the current one.
- Add a page after the current one.
- Change the page layout to match a master page.
- Or delete a page.

In addition, the user may drag and drop the page thumbnail to move the page to a new position in the document.

These features are turned off by default, but run-time options can be used to enable them. The allowPageEditing option controls whether pages can be added or removed, or whether the page layout can be changed. Note that you must have one or more master pages in your document in order to add a page or to change the page layout. The allowPageMoving run-time option controls drag and drop of pages.

PDF Presets

To control various aspects of a PDF generated by the PrintUI servers, you can use a "PDF preset". For example, you can control bleeds, crop marks, image resolution, color space, and more. The PrintUI servers have a number of built-in PDF presets including:

- PrintUI Default
- High Quality Print
- Interactive
- PDFX1a 2001
- PDFX3 2002
- PDFX4 2008
- Press Quality
- Smallest File Size

You can see the most current list of built-in presets by logging into https://admin.w2p-tools.com and going to the Settings page. However, you can also upload your own PDF preset if you want, either on that same Settings page or by your site developer using an API to do so. Many print shops can provide a PDF preset that they would like you to use in order to give optimal results on their printing press. But you can also create your own from within InDesign. Note that PDF presets have a file extension of .joboptions.

Bleeds and Crop Marks

Bleed guides defined through Document Setup in InDesign are not preserved when your template is uploaded. You may think that it is because there is a gray border displayed around the page within the PrintUI editor. But that gray border is just decorative and is the same width no matter what the actual bleed may be and no matter what size page you are showing.

You can, however, use real bleeds for your output. In most cases, your end users will not want to know how the bleed is defined, nor will they want to know about crop marks. In this case, you should use a PDF preset to define the bleed and crop marks for the PDFs generated by the PrintUI servers. See the *PDF Presets* section for details.

For cases where you want to show your users the bleed area and, perhaps, crop marks, you have a couple of different options. One option is to increase the page size to accommodate the bleed area and crop marks. Then manually draw the crop marks within the larger page size on the Background or Foreground layers. You could also manually draw bleed guides for the page edge and safe zones on either the Background No Print or Foreground No Print layers to show the user where the pages will actually be cut once printed.

An alternative method is to manually add lines outside of the page boundary representing the bleed guides and crop marks. These can be drawn as rectangles on any editable layer. Do not put them on a non-editable area because those layers do not show off-page content. To prevent movement of the guides they should be locked in InDesign, perhaps using a separate, dedicated locked layer. In addition, you should use the PrintUI Frame Options or PrintUI Tags panel to mark the rectangles as non-selectable. This will prevent an Edit button from appearing on the rectangles.

Pasteboard

You may place objects on the pasteboard on any of the editable layers and they will show in the PrintUI editor pasteboard area. This is useful for adding notes or objects you want your users to have available as optional content. Unless you lock these pasteboard objects in InDesign they will jump to the upper left corner of the document when clicked in the PrintUI editor.

PDF Size Restrictions

InDesign can have problems generating PDFs:

- When font sizes exceed 720 points.
- When the page size exceeds 200 inches (roughly 5 meters).
- When an image size exceeds 10,000 pixels. (Multiply the largest dimension in inches by the dpi.)

There is no way around these limitations. So if you need to create a PDF for a large application such as a banner or billboard, you'll have to create your InDesign template at a smaller size and then tell you print shop to scale it to the desired size.

However, in PrintUI's web editor, it could be confusing to end users if the font sizes were shown at the smaller size. To display the fonts at a size consistent with the desired output size, you can specify a scaling factor in the template settings in the PrintUI panel in InDesign. Say, for example, that you need to design your document at 1/10th size in order to keep it within InDesign's restrictions. You would then set the PrintUI scaling factor to 0.1 in order for the font sizes to be shown to your users in the web editor at 10 times the size they are in the InDesign template.

Complexity Score

When you upload your template, a "complexity score" gets calculated that lets us determine how long it should take to generate a PDF or IDML file on the PrintUI servers. By default, we assume that the complexity of your template at the time you upload it is comparable to the complexity that it will be once your users are finished making changes in the web editor. However, that may not always be the case. Depending on the nature of your templates, your users might make extensive edits which you may not always be able to predict. For example, perhaps they add huge images or complex vector art. In that case, the complexity at upload time won't match the complexity of the customized template, so you will get timeouts when the PDF or IDML file gets generated. If that happens to you, there are a couple of things that you can try:

- In the Template Options dialog, change the selection in the "Content Type" dropdown from "Stable" to "Unpredictable" content. This causes the complexity score to be calculated differently (which, by the way, takes longer to compute) and usually results in a higher score.
- Ask your web developer to set the "process" parameter for the requestpdf API to "complex" when they generate a PDF. Note that doing so will put your job into the queue with the lowest priority which means that if the server is very busy processing jobs for other clients, that your job could be delayed. We feel that this is a fair compromise, though, since we don't want to slow down everyone else's jobs for your overly complex jobs.

Designing Resizable Templates

In order for a template to be resizable, all objects must be specified as being scalable using InDesign's liquid layout feature prior to uploading it. And all background objects must be unlocked.

Here are the steps to making a template resizable:

1. Open the template document in InDesign.
2. Unlock all objects in the Background layer.
3. Select all objects using Edit/Select All.
4. Click on Layout/Liquid Layout.
5. Set the liquid page rule to Scale.
6. Relock any Background layer objects, save the document, and upload it using the PrintUI panel.

There are two ways that InDesign Server APIs can be used to do resizing. Either just the output (e.g. PDF or JPEG output) can be resized or the job itself can be resized. In both cases, the width and height can be changed either to specific point sizes or a scaling factor can be applied. To resize just the output, a "resize" parameter can be passed to the APIs that are used to request the type of output you desire (e.g. the *requestpdf* API). To resize the job itself, the *requestresize* and *getresize* APIs must be called. There are a couple of advantages to resizing the job itself. First, if a job is resized prior to showing it in the PrintUI web editor, your users will see exactly how it will look. Second, if a user adds an image to the resized job and you have specified a minimum resolution, the editor will check to make sure that the image is acceptable for the new size.

Designing for "Fast Edit"

Some sites that use PrintUI, such as BrandingUI, can use a PrintUI template feature that we'll call "fast edit." What this does is to copy the text and images from one template into other templates by using the *copycontent* API. This feature is very useful for marketing campaigns where there is a family of several templates that all have similar content but which are used for separate needs. Once an end user customizes one template in the family, the *copycontent* API is called to populate all of the other templates in the family.

To make "fast edit" work properly, the family of templates must be designed with this feature in mind:

- For your family of templates, think of the frames that you will have in common between templates. It is not necessary, though, for every template in the family to have exactly the same number of common frames. Some templates may have more frames in common than others.
- For each frame that has a corresponding frame in another template…
    - Each must have same name in the Layers palette in InDesign. This name is used to match the source to the destination.

  - Each must use the same unique paragraph style name. However, because the source and destination frames may be a different size, the text size for the style can be different in each template.
  - Source and destination text frames should all be sized proportionately to avoid text overflow. For example, let's say you are designing a 34x44 poster that has a 12x20 text frame with 40 point type. If you have an 8.5x11 template in the family, the text frame should be 3x5 with 10 point type (i.e. one quarter the size).

- Do not use style overrides. For example, do not assign a specific text style and then select the frame to set it to a different point size.
- The template that has the most frame name matches to the other templates in the campaign must have only a single instance of each frame name. For example, a template that has three image frames named "Logo" will fail to work properly with Fast Edit. This is because the PrintUI server cannot determine which of those three "Logo" frames should be the source image for the other templates in the campaign. (They all might have different logo images in them.)
- To get a sense of how Fast Edit will work for any particular campaign in BrandingUI, an end user can create a campaign and then click on the Analyze Fast Edit button at the bottom of the Campaign page.

Let's look at a simple example—cookie sales for a national club. Each club location can price their cookies differently and each location has their own sales events. For each event, each location wants to create a poster that they can put in shop windows as well as a matching banner for their Facebook page which links to a web site that advertises the cookie sale location. So the design team at headquarters creates three templates. The poster has one frame called Event Date, one called Price, one called Location, and one called About Us. The Facebook banner has the Event Date, Price, and Location frames, but not About Us. The HTML for the web site has all four frames. Each template also has the same look, with common text and graphic elements that are not going to be customizable.

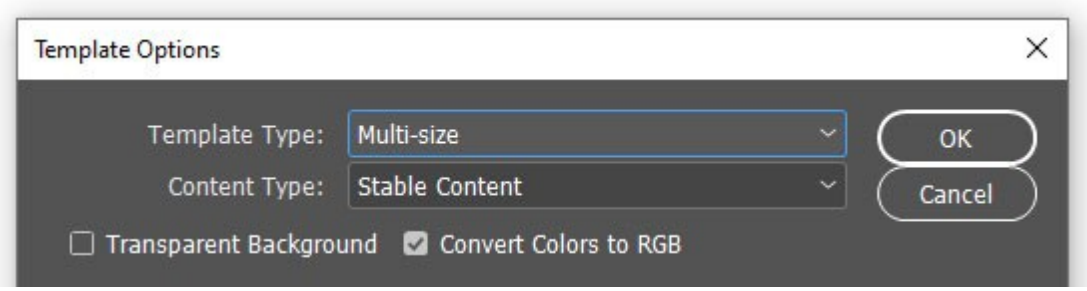
A volunteer at each club location begins by customizing the poster, entering their own event date, price, and location. Perhaps they also tweak the About Us section to discuss some aspect that is unique to their location. At that point, the *copycontent* API gets called so that the banner and the HTML will have matching content. If desirable, the banner and HTML jobs could be opened in the PrintUI editor to verify that everything looks correct or to make minor tweaks. PrintUI APIs are then called to generate a PDF for the poster, a JPEG for the Facebook banner, and HTML to upload to the web site.

Multi-Size Templates

Most of the time, you will want to upload a template that contains one or more pages which correspond to your original InDesign document. We call these "multi-page" templates. However, there is another option called a "multi-size" template where you can think of each page of the document as being a separate template. One common example is to support both portrait and landscape orientations of the same template. For example, page 1 might be 8½ by 11, and

page 2 would be 11 by 8½. However, from a design perspective, you'd use the same fonts and design elements but you would obviously lay out the landscape version quite differently from the portrait version. Or perhaps you are creating signage of several different sizes but with the same design elements.

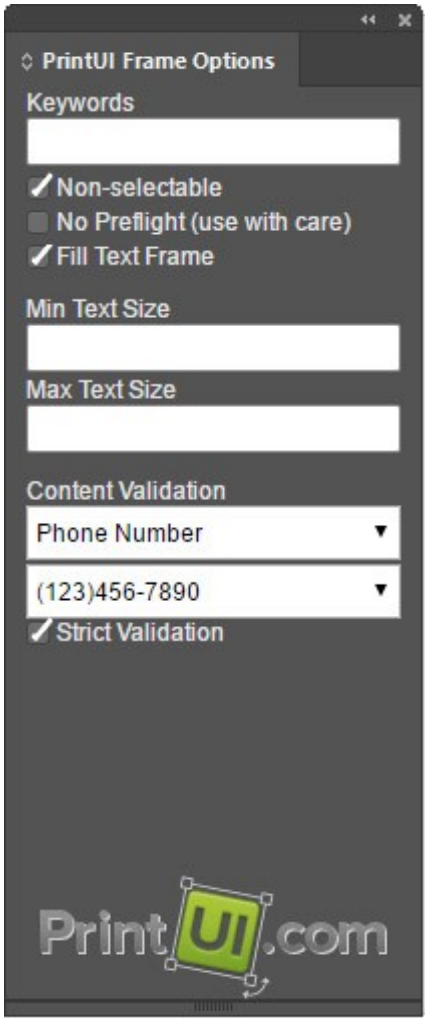
To create a multi-size template, click the Setup button in the PrintUI Management panel in InDesign and then select Template Options. Then select "Multi-size" for the Template Type.



Note that even though you might think of each page as being a separate template, a multi-size template still counts as only a single template towards the template limit for your PrintUI account. Also note that each page in a multi-size template *must* have a different size or it will not be accessible via the PrintUI APIs. If it is necessary for multiple pages to have the same size, you can make each of those page sizes 0.001 different from the others.

Frame Options

There are some things that PrintUI can do that can't be done in InDesign. To enable them, you use either the PrintUI Frame Options panel or the PrintUI Tags panel, depending on which version of InDesign you have. Both are available from InDesign's Windows menu.



Keywords can be passed to an image gallery as a way to limit which images an end user will see when an image frame is selected. However, a developer must have designed an image gallery to look for the keywords in order for this to work.

Non-selectable is used to make a frame non-editable in the web editor. However, a frame that is marked as non-selectable can still be modified programmatically using the PrintUI APIs. This feature can also be useful if you want to insert a non-editable layer between two editable laysers.

No Preflight is used in certain special cases where a frame should not be checked during the preflight stage of PrintUI's upload process. Since the preflight checks for things that don't work in PrintUI's web editors, this option should be used very rarely.

Fill Text Frame indicates that you would like text to shrink as a user enters more text than will fit into a text frame, or, conversely, expand as they enter less text. The **Min Text Size** and **Max Text Size** values indicate the minimum and maximum font size, in points. All text in the frame will have the same size.

Content Validation is used for text frames that contain content that must be formatted in a very specific way. For example, your template may be for business cards where the phone number must be formatted to meet your company's branding guidelines. If **Strict Validation** is not selected, an alert will appear in the editor if the content does not validate correctly and the user will be allowed to keep the non-validated content. **Strict validation** will revert the content if validation fails.

InDesign Feature Support

The PrintUI web editor cannot mimic every feature of InDesign, partly due to limitations of using HTML5 for rendering, and partly because it would take many, many years of effort to match every feature that Adobe has created. With that said, we are dedicated to continuously improving our web editor and supporting more and more of InDesign's feature over time.

Troubleshooting

While you are uploading templates, you will sometimes get an error message during the preflight. Many times the error message will be self explanatory. However, some of the error messages, such as "uncaught Javascript exception," will be less than helpful. Or the template may upload, but then produce strange results in the web editor or in the final PDF.

Some common problems to watch for:

- Font issues such as…
    - Mixing TrueType and OpenType fonts for the same font family. InDesign gets confused when you do this. All fonts in a single font family ("Arial" is an example of a font family) should all be either OTF or TTF.
    - Using the Arial Black font in your template. InDesign gets confused.
    - Using bad fonts, such as really old Postscript fonts that have been converted into OTF or TTF format. Many times the font information embedded in the font is incorrect.

  - The best solution to font problems is to obtain a complete family of fonts all at one time and in OpenType format. Using the PrintUI panel in InDesign, be sure to delete all of the old versions of the fonts before installing the new ones. Also be sure that all template designers are using the same set of fonts and have deleted any old fonts.
  - Using bullets from fonts that have non-standard glyph encoding. Many Wingdings and Dingbats style fonts have this problem. Instead, you should select a bullet character from a font that does use standard encodings. For example, Adobe's Minion Pro font has a small bullet glyph at Unicode 2022 and a large square bullet glyph at Unicode 23F9. Use a font utility to view which glyphs are available in your particular font.
  - Syncing to TypeKit fonts. You must download and install the font onto your computer in order for it to be uploadable by the PrintUI Management panel. Using TypeKit fonts may also have licensing issues.
- Using a feature that PrintUI's web editor doesn't support such as…
  - Using spreads or facing pages in your template.
  - Using stroked text where the text is drawn using vector paths.
  - Text on a path.
  - Using gradient transparency.
  - Embedded images that were copied and pasted into the document. Only linked images are supported.
  - Multiple references to the same linked image.
  - Paragraphs can have Space Before and Space After which is correctly supported. There is another option in InDesign called "Space Between Paragraphs Having Same Style" which is similar but is only applied between paragraphs that have the same styling. This was recently added to InDesign and the editor does not support it. Its default in InDesign is "ignore". It is automatically reset to "ignore" when preflighting a template.
  - Hyphenation. (It is automatically removed when preflighting.)
- Other things such as…
  - Accidentally opening the document from PrintUI's packaging folder rather than the actual document in the original folder.
  - Links to files on networked drives. All linked files should be in a local folder.
  - Images that are embedded (i.e. via copy and paste) rather than linked.
  - Objects that are very tiny or have zero width.

  - Objects that are embedded inside other objects will not be shown.
  - The ZIP created as a result of PrintUI's packaging is larger than the 700 MB upload limit due to using extremely large images.
  - Duplicate frame names.

- If the InDesign document has been created using special plugins, such as an imposition plugin, it may or may not work with PrintUI. To clean out the document, open it in any version of InDesign and follow these steps:
  - Export the document to IDML.
  - Open the IDML document in InDesign in which you've installed the PrintUI extension.
  - Save the file as .indd. Note that it is good practice to choose a new name for the new file rather than overwrite the old version.
- Or sometimes the InDesign document simply becomes corrupted. This is a known issue with InDesign and can be made worse by opening a document that was created in an older version of InDesign. These are the steps that we recommend to clean out any corruption:
  - First try exiting from InDesign and launching it again. Surprisingly enough, this sometimes is all that is required.
  - Use the InDesign package feature to copy the document and all assets to a single location.
  - Try to save the document as IDML and open and package that.
  - Copy all pages to a new document. Start with a new document that has the same page size and then add your content. You should be able to just drag your pages into the new document.

If none of these work, divide and conquer. Delete half the document and try to package. Then delete half of what does not work, and again in half until you find the problematic piece. Or you can try using different fonts.