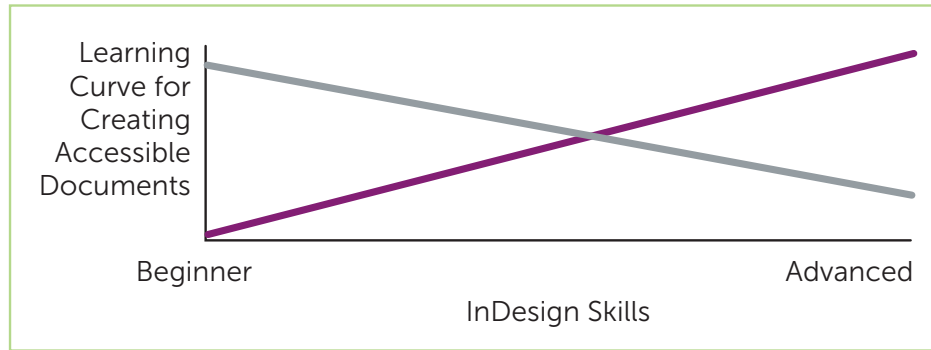


Using Adobe InDesign to Create Accessible PDF Documents



ACCESSIBILITY IN INDESIGN

Understanding InDesign and taking advantage of best practices will do the heavy lifting when it comes to creating accessible documents.



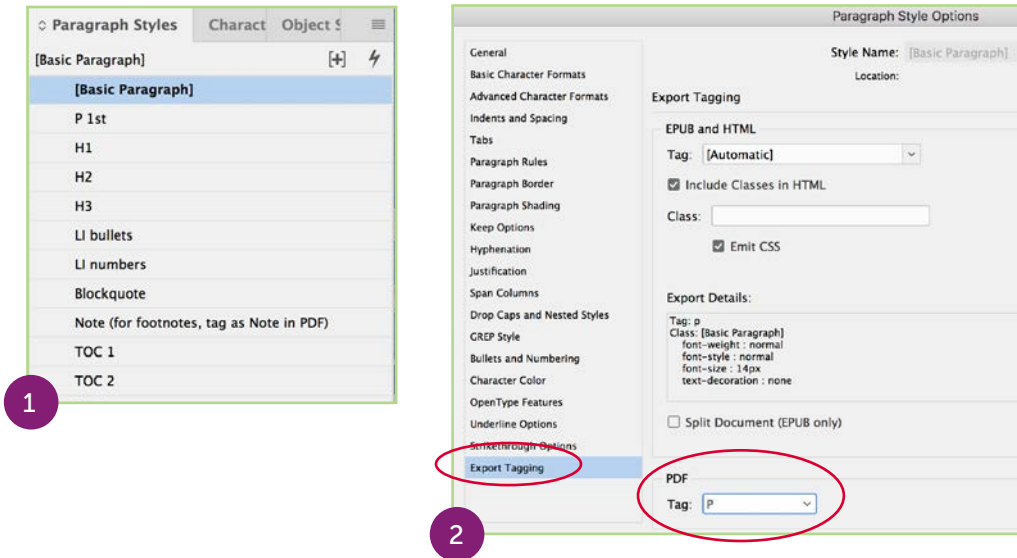
Control *everything* with a style—**no formatting from the toolbar!**



Some accessibility tasks may have more than one approach. Others may require some creative thinking.

PARAGRAPH STYLES

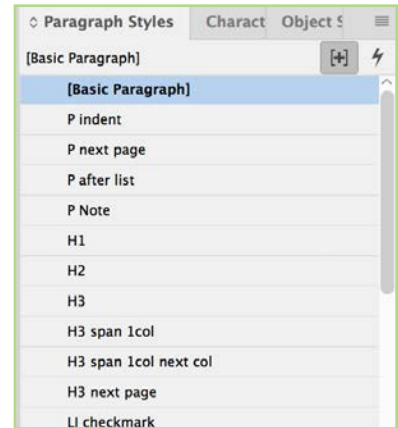
With no documents open (so these become your default styles), create paragraph styles and assign export tags.



- **Basic paragraph (or custom body text style):** set to P;
- **Headings (6 possible levels):** set to H1...H6, respectively;
- **Bulleted list:** set to Automatic;
- **Numbered list:** set to Automatic;
- **Blockquote:** set to Automatic;
- **Table of contents:** set to Automatic.

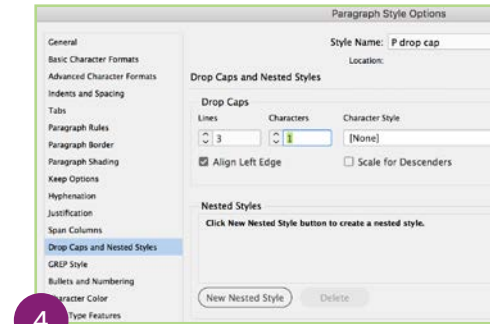
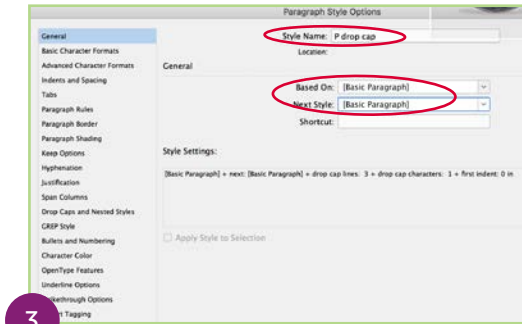
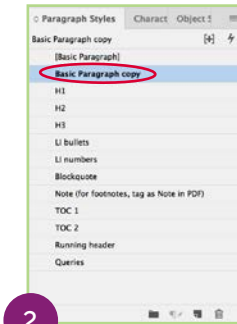
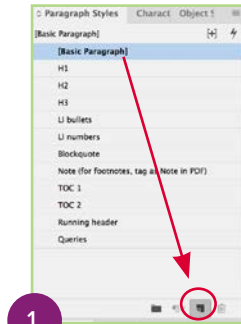
Export tags define how the text should be tagged when exported to PDF. It's helpful to name them with their corresponding HTML tags.

Styles set to Automatic may need to be manually changed in Acrobat.



Make use of the Based On feature to make styling more efficient:

1. Duplicate an existing style.
2. Rename the style.
3. Changed the Based On settings.
4. Style as desired.



CHARACTER STYLES

Create your default character styles.

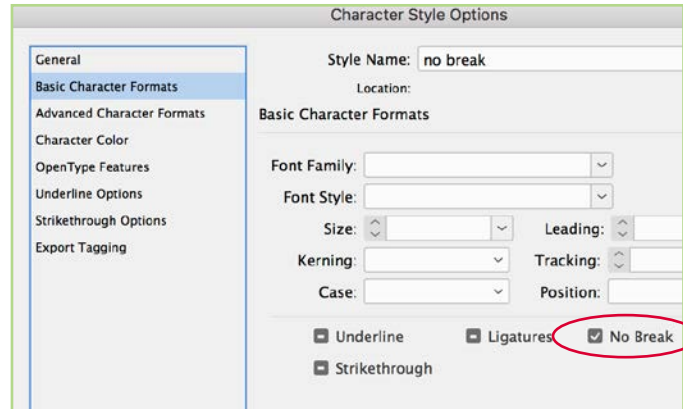
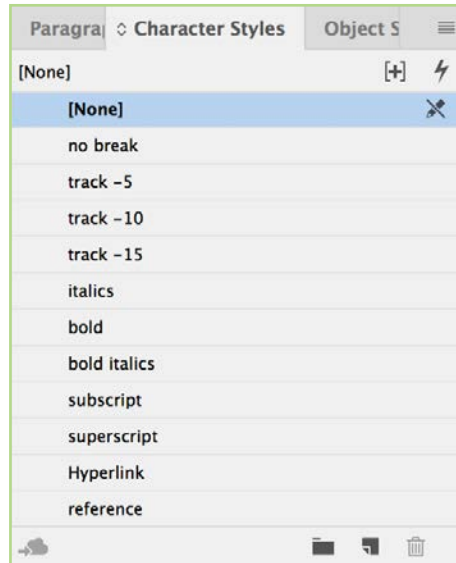
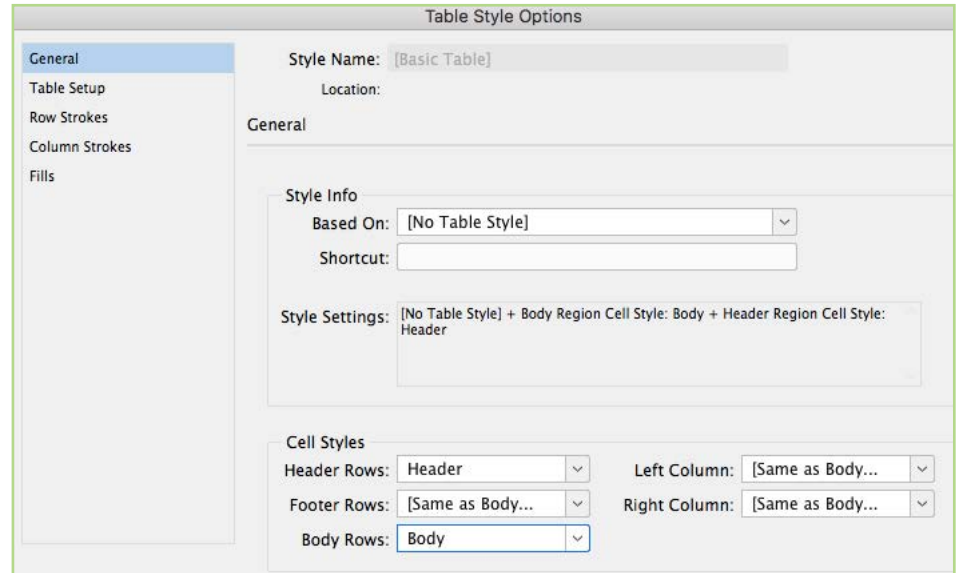
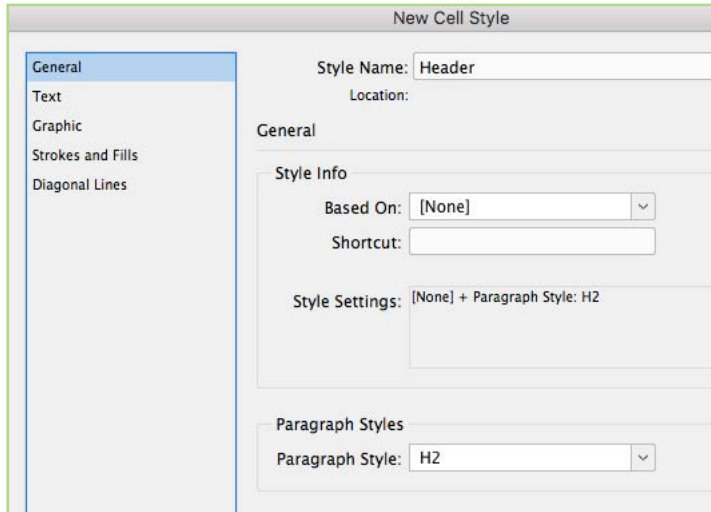


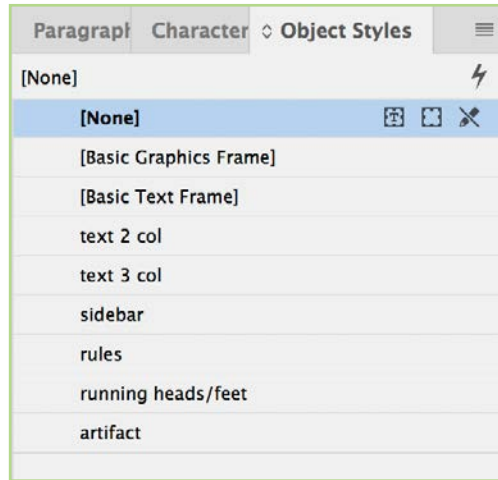
TABLE & CELL STYLES

Create cell and table styles to set your default styles.



OBJECT STYLES

Create object styles to set your default object styles.

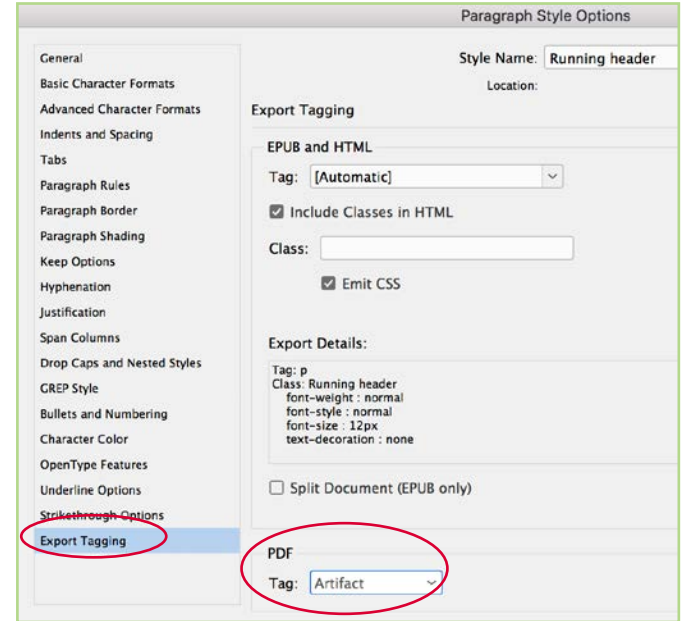


ARTIFACTING: TEXT

Artifacts are elements that are ignored by screen reading devices and other assistive technologies. Any elements that don't convey information or aren't essential should be artifacted.

Apply artifacting to paragraph styles for any text elements that should be artifacted:

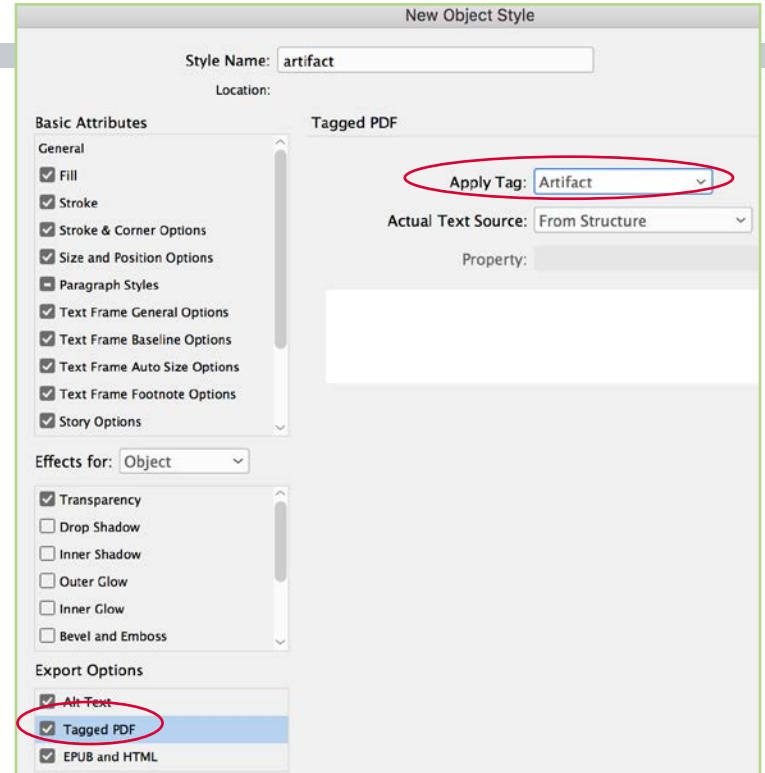
- Page numbers and
- Running headers and footers.



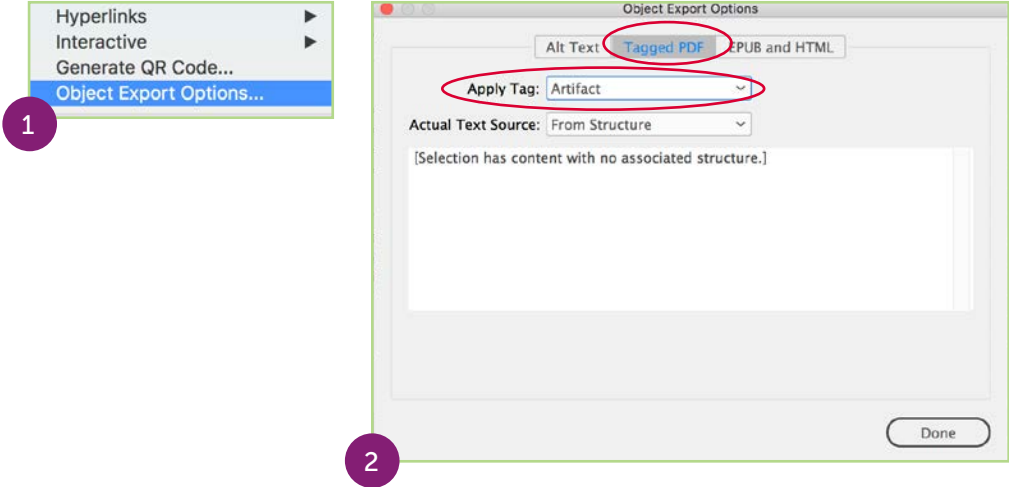
ARTIFACTING: OBJECTS

Apply artifacting to object styles for any elements that should be artifacted:

- Decorative blocks of color,
- Decorative elements such as rules,
- Decorative background graphics.



You can also artifact an element by right-clicking (Mac) or control-clicking (PC) and selecting Object Export Options and selecting Tagged PDF > Artifact.



COLOR

Do not convey information by color alone. Distinguish with tags and differences in size, font weight, styling, etc.

Heading 1

Heading 2

Can you tell the difference between the two headings? Can you tell **this** is a link?

Heading 1

Heading 2

Can you tell the difference between the two headings? Can you tell this is a link?

Check contrast with a color contrast checker such as [WebAIM](#).

WCAG Level AA requires a contrast ratio of at least:

- 4.5:1 for normal text,
- 3:1 for large text.

WCAG Level AAA:

- 7:1 for normal text and
- 4.5:1 for large text.

Large text is defined as 14 point and bold or larger, or 18 point or larger.

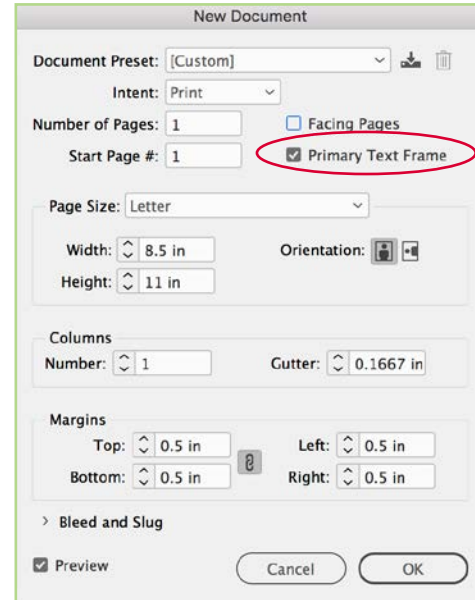
The screenshot shows the WebAIM website's Color Contrast Checker tool. The page header includes the WebAIM logo and navigation links for services, articles, resources, and community. A search bar and a list of articles are visible. The main content area is titled 'Color Contrast Checker' and shows a contrast ratio of 8.59:1. Below this, there are three sections: 'Normal Text', 'Large Text', and 'Graphical Objects and User Interface Components'. Each section shows a 'Pass' result for WCAG AA and AAA. The 'Normal Text' and 'Large Text' sections show the text 'The five boxing wizards jump quickly.' with a red underline. The 'Graphical Objects and User Interface Components' section shows a 'Text Input' field with a blue border and a checkmark above it.

DOCUMENT SETUP

Create a new document with a Primary Text Frame to automatically create threaded stories.

You can also:

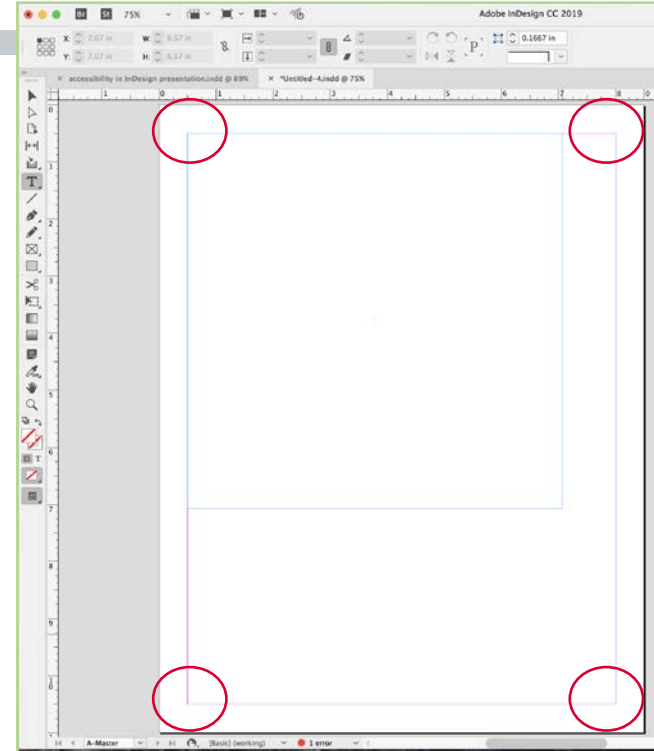
- create one frame per column of text.
- use a single frame per page with multiple columns.
- thread frames together.



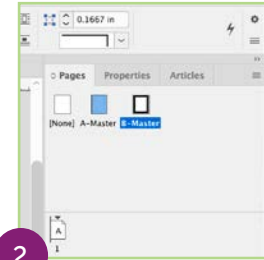
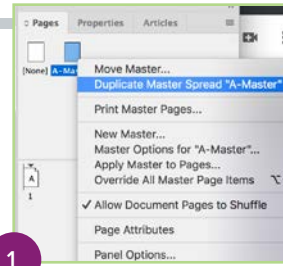
MASTER PAGES

Create master pages with text frame(s).

- Text frames should reach to pink and purple guides, not aligned to added guides.



- Do not override master page items. Create new nested master pages instead:
 1. Duplicate the master page.
 2. Drag and drop a master over the duplicated one.
 3. Select All and delete the items on the newly created master page and modify as needed.
- Artifact running headers/footers (paragraph style or on text frame with object style), rules and design elements.



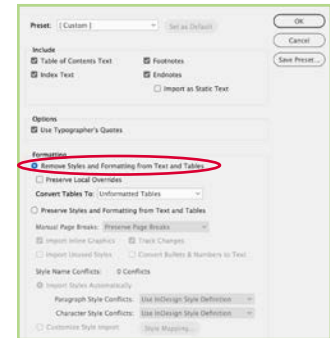
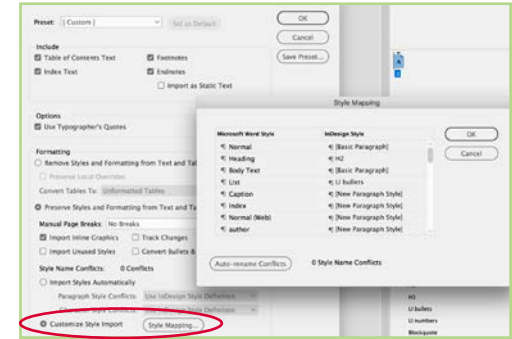
TEXT

Typefaces and Characters

Choose OpenType fonts and use Unicode characters for such symbols as a copyright symbol or fractions.

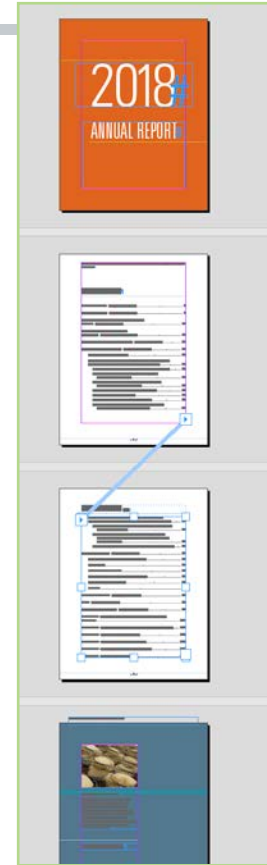
Importing

Mapping styles or stripping out all formatting (importing text with Show Import Options checked) prevents Word code from getting into the layout and causing problems when the PDF is created.



Threading

- Thread all text frames, or only individual sections or chapters.
- Leave the table of contents unthreaded from the rest of the document's content.



Cleaning Up

- Remove multiple spaces and paragraph marks.
- Remove any forced breaks. Use a “no break” style instead.
- Remove tabs.
- Rekey anything in all caps unless an acronym. OK to *style* as all caps.
- Change hyphens that should be en or em dashes (no double hyphens).
- Check that symbols such as copyright and fractions conveyed. Rekey with Unicode characters.
- Remove blank rows and columns in tables; merge cells where needed.

Formatting Text

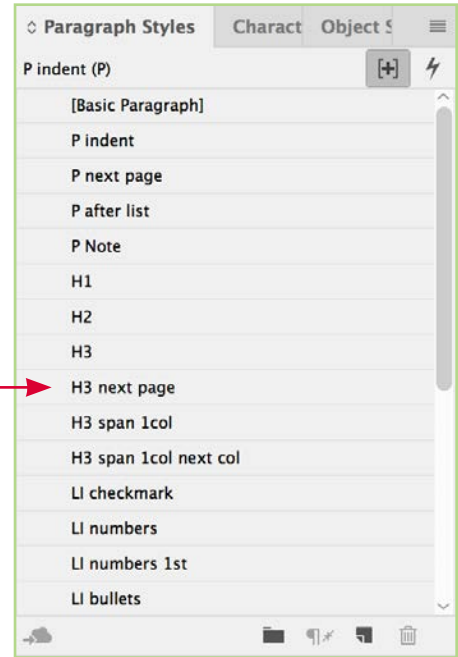
Control *everything* with a style—**no formatting from the toolbar!**

Formatting from the toolbar results in style overrides, which may prevent some AT from presenting the info to their users.



Instead, create new paragraph or character styles based on other styles to make adjustments, including tracking, so you have no overrides anywhere.

Example: To have a heading start on the next page, instead of inserting several paragraph marks or a page break, create a style called “H3 next page” based on the original and set the Keep option to Start on Next Page.



- Set the export tag of the paragraph style of the document title as H1. Style chapter or section titles as H1 or H2.
- Use the correct sequential order for headings and do not skip any, such as do not go from an H2 to an H4. →
- Take advantage of paragraph styling options such as Span Columns, Paragraph Shading and Paragraph Rule, etc.

H1 Everum Rerehendem as Eos Maximincte

H2 Nobitat esequo estia

Perum quia experias es est est arum ipis quaerchitam, sit in cupid quis vollessi iusaperit aliquidum et voluptasit hant sit. onnmolorehent explignisique esseasqas ullacesequo anto modit re caribusciae pererrovit explandici voluptatum, od quiam facis cossitibus minvenis sim id eum ipsam ulparum, sed quo conceer emolum endam, quassin re poreped est, nus exeressequo quo coninhicitat est lacepro diamus, qui cust, is est as repudipsant utem quis ut vellupit qui is eum fugit, nam, oditasi volectur?

H3 Olo et eaue sedit mo

Et venisi to blab il ipici dolorum repeditas et verferum es quam, cullescab ipitione plam fugiti sine di cum aut voluptatum rat landicipsa cusdam quo versper osidem quias aut molorro enitata plit dolori tem a sine modi dolotem que pa volorem il int catentur?

H3 Um ab int aute nam nonsed

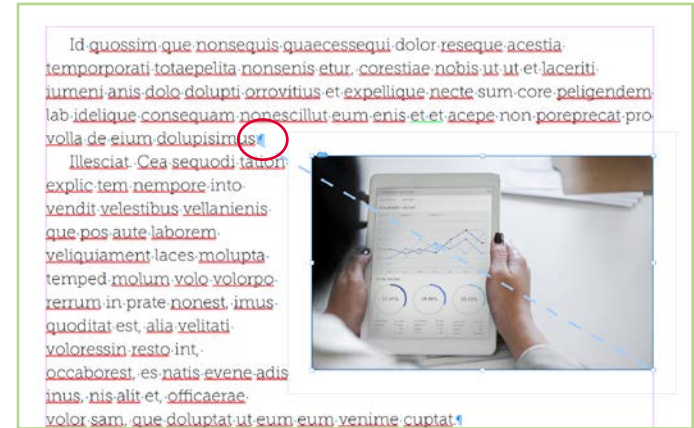
Tum adi omnimi, ipus accatecus plit autem earuptatae doluptatur susciudicia dest volest doluptis exceprerent eos eturias exerro toribus andust quibus excestibeream que nonserunt oditatem. Cab id molupta plantatassit quam unt, audi doloresci duciam ut voluptatia commoluptat incia id et, sinulpa quanda doluptatus, quis re excarament volutas et hil ipis dis dem. Ut hil mos re pro dolorectem. Puditaque omnihil ipsapier optateniaes ea vendit fugitatur, sa quature nlet quo veliquisil occus, autem utem sit, tem audis dit volupta temolum ex, exeribusda cominillia seque vel ipi fugit aut dolor abor res ipsapid elibus ma sunt volorro beratecto tempelis dolorem poreseq uidemque lame sus.

H2 Faciis cossitibus minvenis sim

Re caribusciae pererrovit explandici voluptatum, od quiam faciis cossitibus minvenis sim id eum ipsam ulparum, sed quo conceer emolum endam, quassin re poreped est, nus exeressequo quo coninhicitat est lacepro diamus, qui cust, is est as repudipsant utem quis ut vellupit qui is eum fugit, nam, oditasi volectur?

GRAPHICS

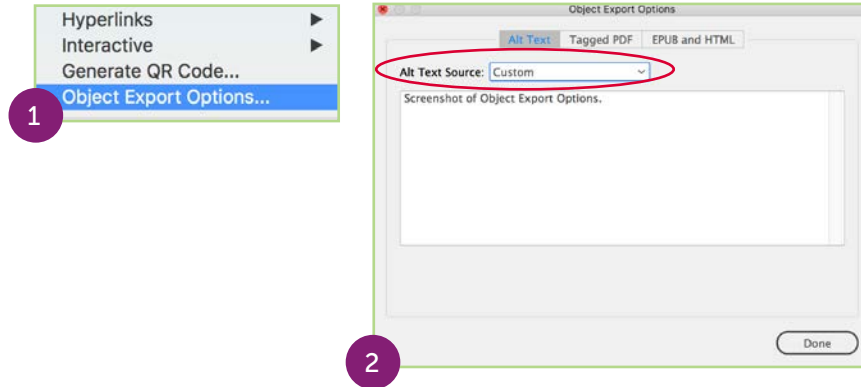
- Anchor images in the text at the end of the paragraph in which they are mentioned.
- Apply object style.
- Rewrite any text referencing relative positioning (“below” or “above”). Instead, use an absolute reference such as “See Figure 1.”



Alt-Text

Images and images of text cannot be read by screen readers.

Add Alt-text, which does get read, to non-decorative images. Right-click (Mac) or control-click (PC) and select Object Export Options.



- Alt-text should say what the image contains, key visual elements. Do not give more info than a sighted reader will get.
- Do not repeat the same info as in the caption.
- For infographics, explain what they represent and provide the data (if short) or link to a matching data table (after the chart graphic, in an appendix or on a website) where that data might be provided.

Graphs, Charts and Maps

They may require more attention to ensure readability and sufficient contrast between colors and against backgrounds.

Check contrast with a color-blindness simulator such as [Coblis – Color Blindness Simulator](#).



You cannot convey information by color alone, so if contrast is not sufficient to distinguish the various elements by color, use other means:

- Use lines with shapes in a line graph.
- Use differing patterns in the pieces of a pie chart or bar graph.
- With maps, put text that appears on top of the map in a contrasty color or bold, add a slight drop shadow or move the text outside the map.



TABLES

- Anchor the table in the text.
- Place the title above/outside of the table.
- Style table headers.
- Style table cells with paragraph styles that have Export Tagging set to Automatic.

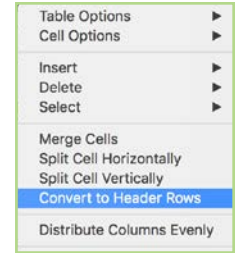
The screenshot shows a document with a table. Above the table is a sample heading and a table caption. The table has four columns: Category, 2017 Actuals, 2018 Projections, 2019 Budget, and 2020 Forecast. The table is styled with a dark blue header and a light blue body. The table caption is 'TABLE 1: Financial Data'.

Sample Heading
Aspectiore quatium rem es aligni-
lilecus denis accusci llenestis inum-
qugesti non perume pre nos-
magnamenia aut ea cores el moluptat

TABLE 1: Financial Data

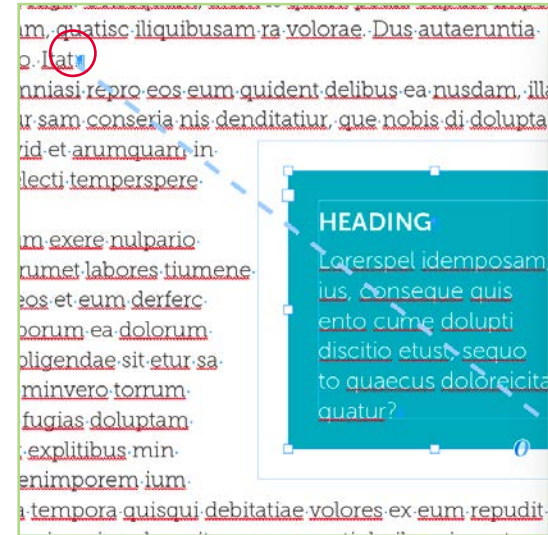
Category	2017 Actuals	2018 Projections	2019 Budget	2020 Forecast
Advertising and consumer education	\$1,289,505	\$2,209,553	\$2,535,494	\$2,908,243
Industry and stakeholder outreach	\$96,476	\$76,276	\$99,677	\$102,667
Other marketing & communications expenses	\$11,173	\$38,850	\$100,015	\$51,515
TOTAL COSTS	\$1,901,579	\$3,300,241	\$4,221,915	\$4,631,233

- Add/convert top row(s) to proper header row(s).
- Remove blank rows or columns.
- Place footnotes after the table. CC 2019 places footnotes at the bottom of the frame that holds the table (which should be in its own frame).
- Do not span across 2 pages unless using columns.
- OK to place table in its own frame anchored in the text.
- OK to use View > Rotate Spread for pages to accommodate wide tables.

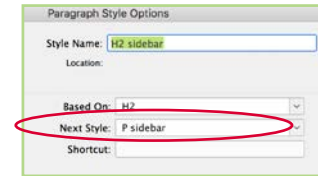
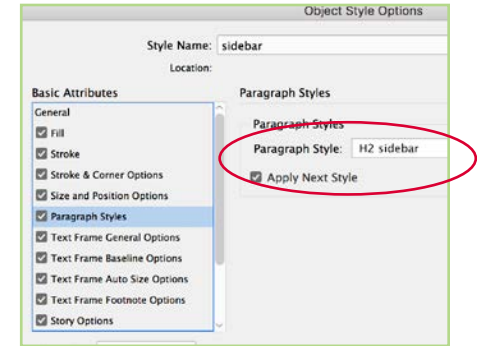


SIDEBARS

- Create sidebars and anchor them in the text at the end of the paragraph in which they're mentioned.
- Style sidebar titles as H2 or another level of heading based on the logical order in which they fall in the section.



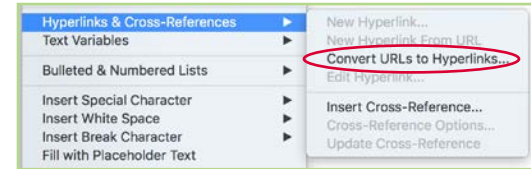
- Use Apply Next Style under an object's paragraph styles to style multiple paragraphs at a time when the next style has been set in that paragraph style.
- A sidebar of only one paragraph could be styled within the same text frame simply using Paragraph Shading.



HYPERLINKS

Make all links (hyperlinks, e-mails, footnotes, etc.) clickable.

- Convert URLs to hyperlinks and manually hyperlink other links: Type > Hyperlinks & Cross-References > Convert URLs to Hyperlinks.



- Create Hyperlink Destinations for cross-references. Then go to their respective references in the text, highlight them and link to them.
- Manually link superscripted mentions and footnotes.

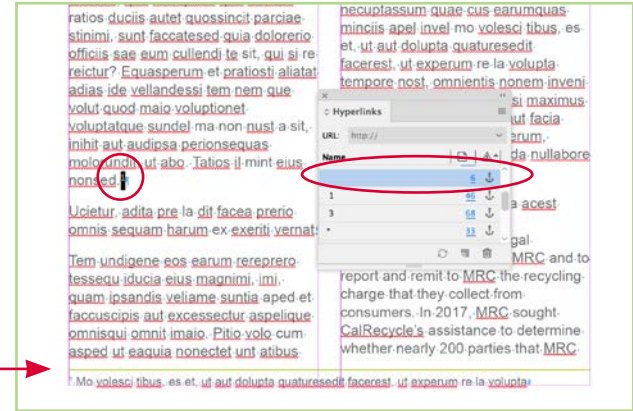
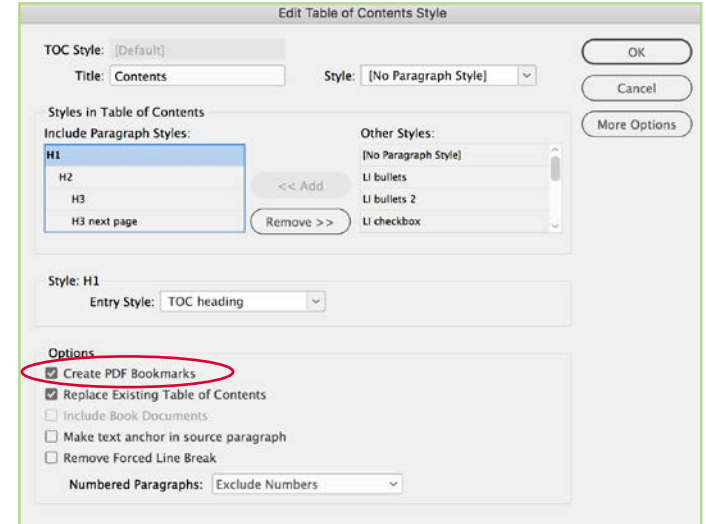


TABLE OF CONTENTS

- Create TOC paragraph styles:
 - Set Export Tagging of TOC title as H2 and regular TOC text as Automatic.
- Create TOC using the built-in feature, which will create a clickable TOC.
- In Layout > Table of Contents, set up the TOC styles based on heading styles.
- Add bookmarks for all covers, chapters and sections easily by selecting Create PDF Bookmarks.

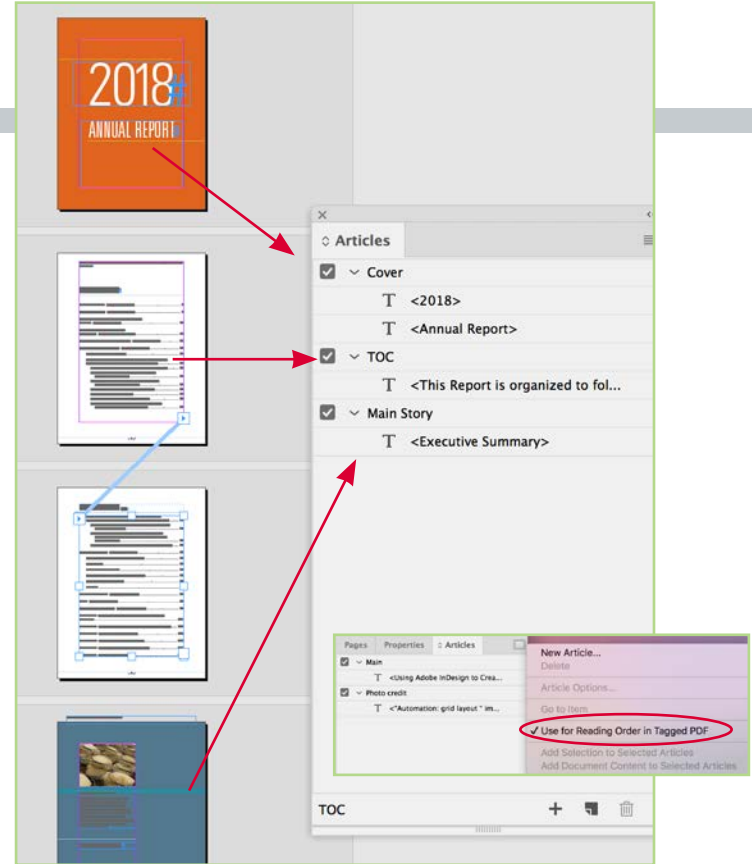


READING ORDER

Text must have a logical reading order. What you see in InDesign is not necessarily the order in which it will be read in the PDF.

Articles Panel

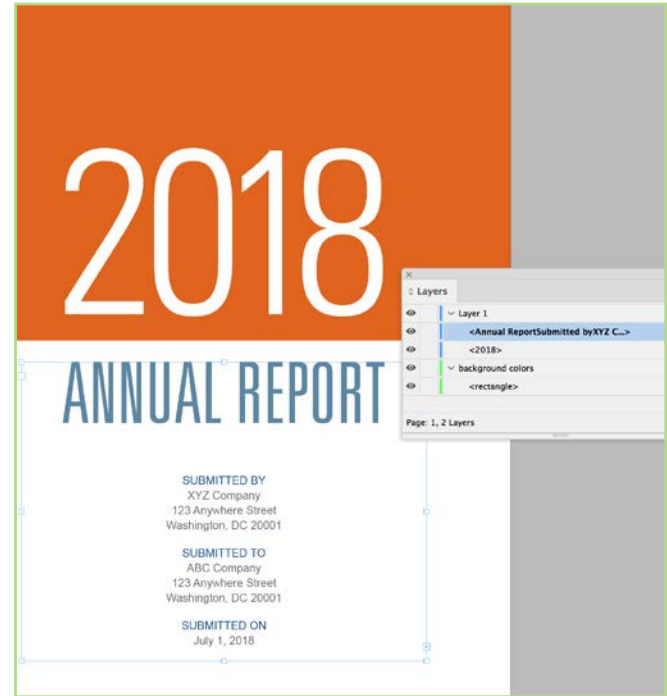
- Drag and drop the TOC and the main content (or multiple unthreaded sections) into the Articles panel.
- Check the option to Use for Reading Order in Tagged PDF.



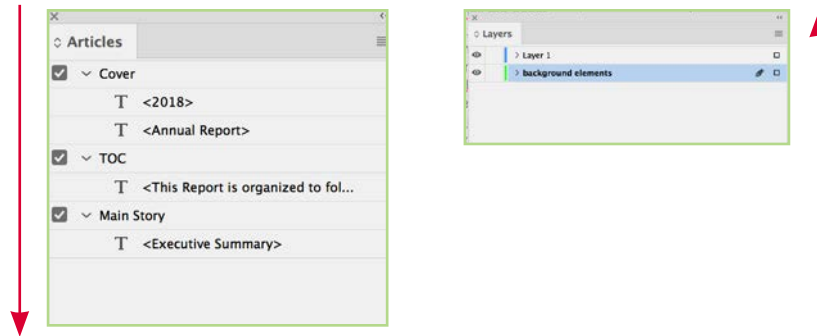
Layers

Reorder items within the same layer (drag and drop) as opposed to creating new layers.

This text frame containing “2018” visually appears above the text frame containing “Annual Report...” and gets read in that order by a screen reader because the text frame with “2018” is below the text frame with “Annual Report...” in the Layers panel (which is read bottom to top).



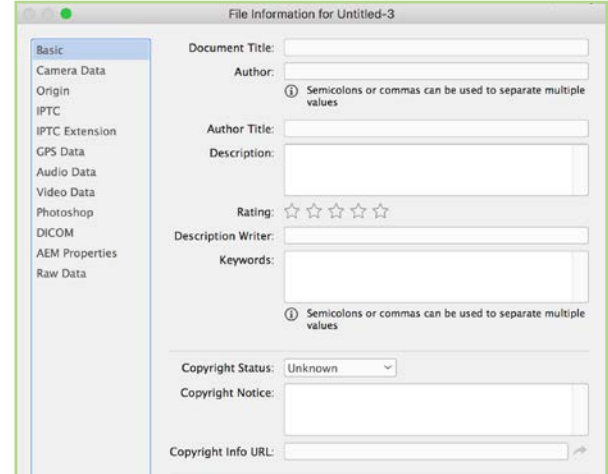
- Article panel is read from top down.
- Layers panel is read from bottom to top.



METADATA

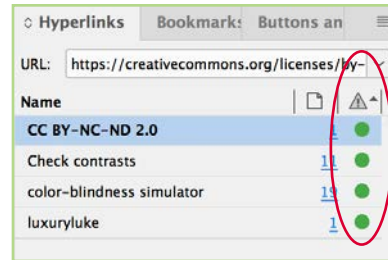
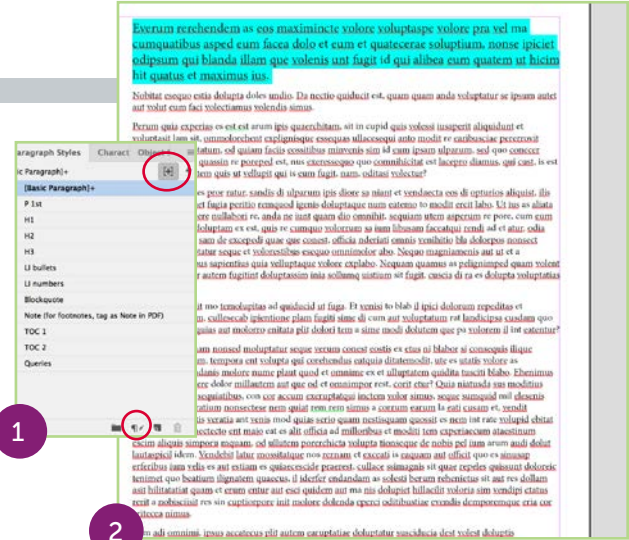
Add metadata at any time in the process in InDesign: File > File Info.

- Fill out at least the Title, Author, Description and Keywords fields.
- The Description field will get read by search engines, so the first 150 to 200 words are most important.
- Add as many keywords as you want.
- Don't use "&" if title has "and." Limit use of ampersands.

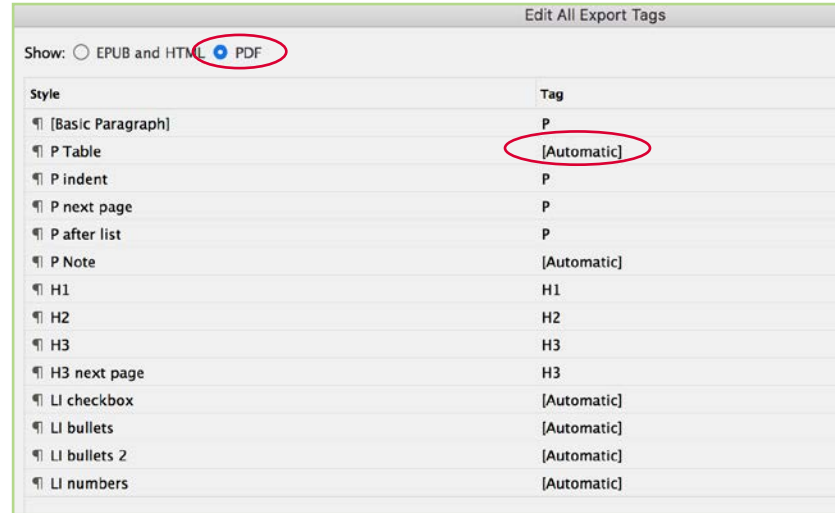
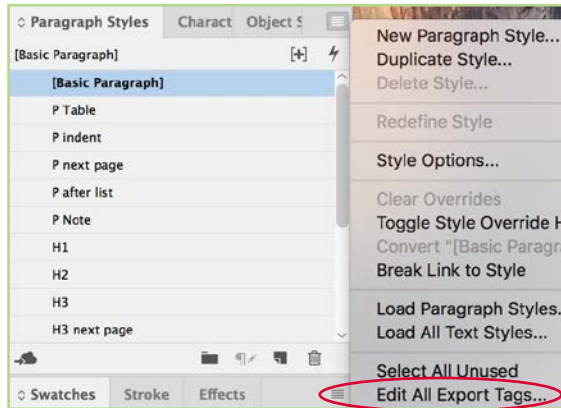


PREFLIGHT & CHECKS

- Preflight as usual.
- Turn on the Style Override Highlighter and check for any style overrides highlighted in the text and denoted with a “+” sign in the style palette.
- Check status of hyperlinks and replace any broken links.



- Check tags: Paragraph Styles palette > Edit All Export Tags. Modify if needed.

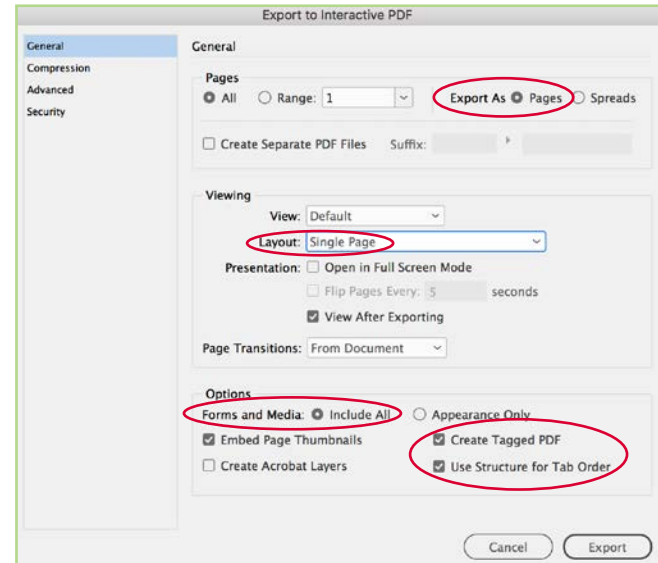


EXPORT

Export as PDF (Interactive).

General Settings

- Export as Pages, not Spreads, so the reading order in the PDF is not affected.
- Layout: Single Page.
- Check Create Tagged PDF.
- Check Use Structure for Tab Order.
- Forms and Media: Include All.



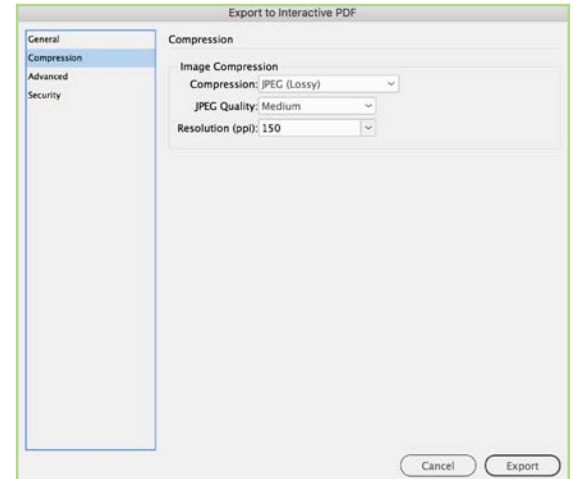
Compression

Set the resolution.

- Set the downsampling to 144 PPI, 200 PPI or 300 PPI, depending on the type of images.
- Optionally increase the Image Quality setting to High or Maximum.

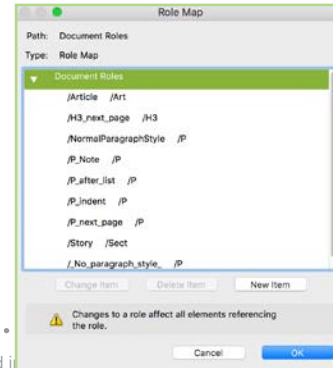
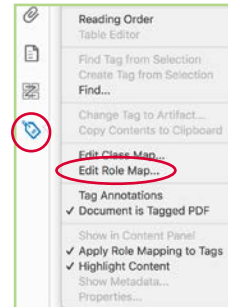
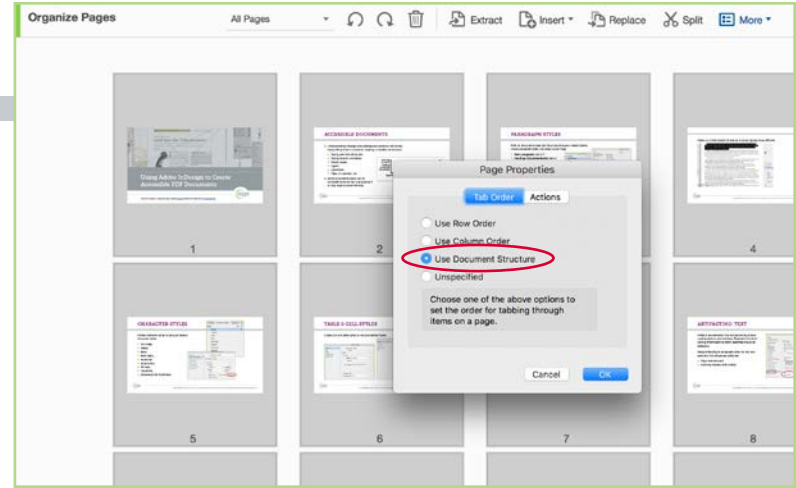
The higher the resolution, the greater the file size of the PDF.

Export a separate PDF file for printing with Export (Print).

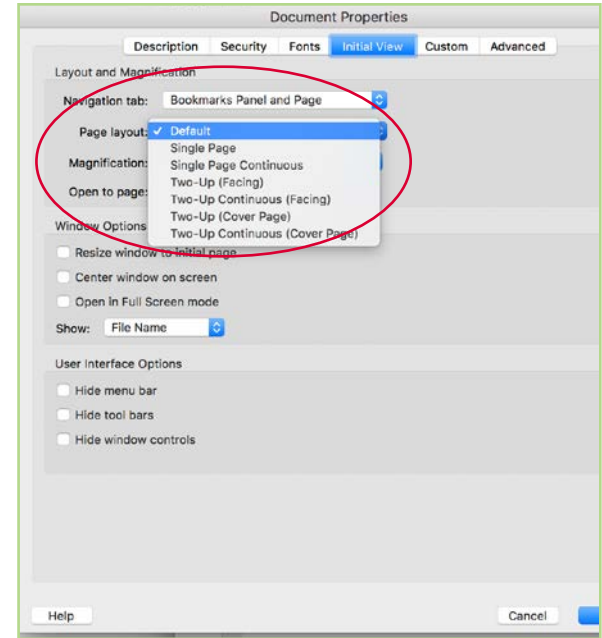


ACROBAT

1. If you didn't check Use Structure for Tab Order: Organize Pages > Select All > More > Page Properties > Use Document Structure.
2. Run Full Accessibility Check.
3. Edit the role map if needed, using the correct allowed tags.



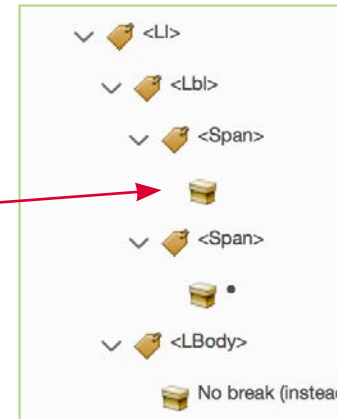
4. Troubleshoot and go back and fix issues in InDesign if needed (you may need to check the Layers and Articles panels). Then re-export and redo steps 1 and 2.
5. Check metadata and remove leading semicolon in keywords.
6. In File > Properties, set Initial View to Bookmarks Panel to open when file is opened.
7. Set page view as two-up if desired.
8. Save the PDF.



INDESIGN BUG

Using a *custom* Unicode character for bulleted lists, rather than the default bullet, results in:

- a double tag in the tagged PDF's <Lbl> tag, causing the bullet character to be voiced twice.
- the space between the bullet and text appear first, instead of the bullet first.



Solution

- Use the default bullets.
- If using a custom bullet, either artifact the space's in Acrobat or allow the double voicing of the bullet. It's not a barrier, but a nuisance.

You can vote for these and other bugs to be fixed at [InDesign.uservoice.com](#). Visit PubCom's [webpage](#) to learn which items to vote for.

CONTACT INFO



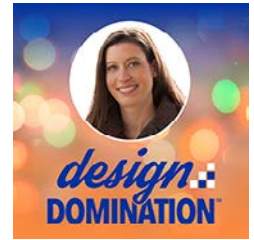
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