USGS eXtyles User Documentation

USGS eXtyles User Guide

Welcome to the USGS eXtyles User Guide!

This is the home page for the USGS eXtyles User Guide. This User Guide is your resource for information about eXtyles, and it is maintained by Inera, Inc. Please contact extyles-support@inera.com with questions or concerns about this documentation.

eXtyles Technical Support

If you don't find the answers you're looking for in this documentation, eXtyles end-user technical support is ready to help!

website: http://support.extyles.com/support/home

email: extyles-support@inera.com

phone: 617-932-1932 (9:00am - 5:00pm EST, M-F)

Be sure to include sample documents with your query, including both the original ($original) and eXtyles processed versions.

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Introduction

Welcome to the world of eXtyles!

The eXtyles family of editorial and XML solutions allows publishers to automate the most time-consuming aspects of document cleanup, formatting, and editing and to produce accurate XML with the click of a mouse. All eXtyles processes are run in Microsoft Word, providing a familiar, easy-to-use environment that requires no XML expertise.

This eXtyles User Documentation provides a comprehensive overview of eXtyles for USGS. Both novice and advanced eXtyles users will find this documentation useful, because it serves as both a "quick start guide" and as a detailed reference for each function in the eXtyles process.

eXtyles User Documentation is organized chronologically; that is, in the order each eXtyles process should be run. The first section, "Getting Started," includes instructions for installing eXtyles as well as reference information useful at every stage of the eXtyles workflow. The next section, "Document Preparation," provides information on preparing your document prior to eXtyles processing, and also provides in-depth information on Activation and Normalization. The third section, "Styling and Editing," covers two processes that are central to all eXtyles users: Cleanup and Paragraph Styling. The fourth section, "Processing and Validation, " includes information on the Advanced Processes included in eXtyles for USGS that are used during reference, citation, and author processing. The fifth section, "Final Steps," covers Post-Processing Cleanup and the BITS DTD XML export filter. The final two sections cover additional eXtyles tools that can be used at any point during eXtyles processing and workflow guidelines.

Getting Started with eXtyles

eXtyles is a fully configurable and expandable suite of tools that allow you to work in the familiar Microsoft Word environment. Once installed, the eXtyles menu appears on the Word menu ribbon as a separate tab. This new tab lists all of your organization's eXtyles tools as well as handy shortcuts to native Word functions.
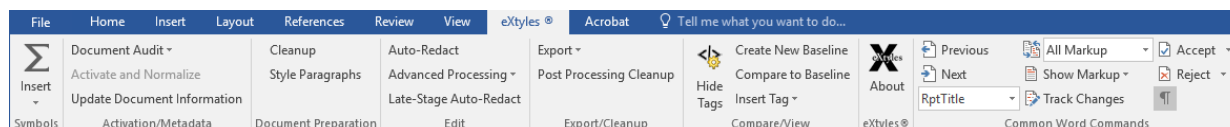
This section, "Getting Started with eXtyles," will help you do just that: get started with eXtyles!

eXtyles Support

If you encounter problems while working with eXtyles, please check the support pages at **http://support.extyles.com/support /home**. Most common issues are described there.

Technical support queries should be communicated to your organization's internal eXtyles liaison (this person is usually chosen during User Training). He or she will then contact Inera and will be responsible for communicating Inera's replies to the eXtyles users in your organization.

All technical support questions should be sent to **eXtyles-support@inera.com**. Inera's support team strives to respond to all queries in a timely manner. To help the support team address your query as efficiently as possible, please provide the following information, if possible, when submitting technical support queries:

- A complete description of the problem, including the eXtyles step at which the problem occurred
- Your version of Microsoft Windows
- Your version of Microsoft Word
- Your eXtyles build number (this can be retrieved by clicking the "About eXtyles" button on the eXtyles ribbon)
- Any relevant documents, including the working version and $base or $original files created by eXtyles during processing

Including this information will help the support team solve your problem quickly and efficiently.

Installation

eXtyles is an advanced add-on to Microsoft Word that is simple to install. Before installing eXtyles, review the following software and hardware requirements and recommendations:

- Microsoft Word for Windows 2016, MS Office 365
- Microsoft Windows 10 or 11
- 1024 × 768 screen resolution (minimum)
- Intel Core i5-9 (9th Gen), Intel Xeon (2nd Gen), or equivalent or faster (we recommend systems less than four years old)
- 8 GB RAM (minimum): we recommend 16 GB Ram, or twice the minimum Microsoft specification for any combination of Windows and Word
- 500 MB free HD space to install
- Internet access for installation and certain processes (e.g., Crossref Reference Checking)

⚠ Inera is sunsetting support for Office 2010 and 2013. Microsoft discontinued support for Office 2013 in October 2020, and it has plans to discontinue support for Office 2013 in April 2023. Although eXtyles will continue to work in Word 2010 and 2013, starting in June 2023 Inera will no longer provide technical support for eXtyles running in Word 2010, and starting in December 2023 Inera will no longer provide technical support for eXtyles running in Word 2013.

⚠ **Note**

As of December 2022 eXtyles is compatible with 64-bit versions of Office. Please see our Technical Bulletin for more information or contact our support desk at extyles-support@inera.com.

Before installing eXtyles, ensure that you are logged into your PC under an account with administrator privileges. Quit Microsoft Word before running these steps.

To install eXtyles:

1. Double-click the eXtyles installation file that you downloaded from the provided URL; this file will probably look something like eXtylesUSGS1234.exe.
2. The InstallShield Wizard will open and provide you with step-by-step instructions for entering your user information and installing the program.
3. If necessary, install any patch files according to the instructions provided by Inera
4. Start Microsoft Word.
5. If necessary, accept the security alert to allow macros signed by Inera Inc. to run. You will see the eXtyles menu added to the Word ribbon (or to the Word menus in earlier versions of Word).

If you do not see the eXtyles menu/ribbon in Word after installation, please visit our FAQ at **http://support.extyles.com** or contact eXtyles technical support at **eXtyles-support@inera.com**.

Microsoft Word and eXtyles

eXtyles works as an extension to Microsoft Word. eXtyles manipulates the Word document, but until converting the document to XML, the file remains in DOC (or DOCX) format and can be opened and edited on any system running Word—even on a system that does not have eXtyles installed, such as that of an external reviewer or freelance copyeditor.

After eXtyles is installed, eXtyles functions are accessible from an eXtyles tab that is added to the Word ribbon. All eXtyles processing is carried out on Word files.

Users of eXtyles are expected to be conversant with the standard features and functions of MS Word.

Reviewing Word Styles

It is often useful, especially after using the eXtyles Paragraph Styling palette, to review the styles you have applied to the content of a document. Opening the Word style width area window on the left side of your document is the easiest way to review the styles you have applied. The Word style width area will be displayed in Word's Draft viewing mode (on your screen only, not in the printed document) to the left of your screen.

To enable this feature in Word:

1. From the Word View tab, select Draft.
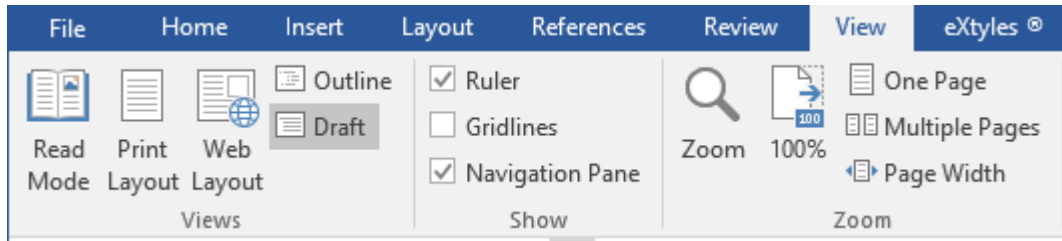
2. Select the Word File tab.

3. Navigate to Options > Advanced > Display > Style area pane width in Draft and Outline views. Set the Style Area Width setting to your preferred width (1 inch is a good starting value).
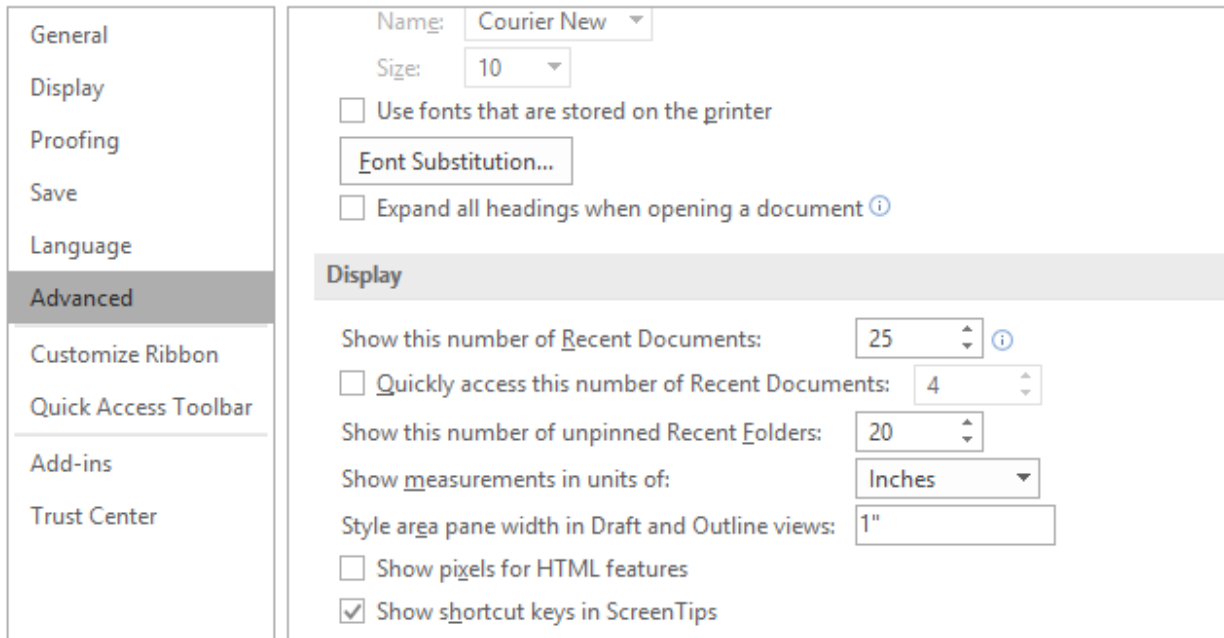
Once this window is open, the style name of each paragraph is displayed to the left of your screen. You can page or scroll through your document to review the styles you have applied to each paragraph. You can close the style area pane by dragging on the vertical line all the way to the left edge of your Word window, or by resetting the value as described in this section to 0.

TableTitle	**Table·1.** → Domain·properties·of·the·salt·marsh·morphology·modeling·system·for·Jamaica·Bay,·New·York·City.¶
Head2	**Model·Parameters**¶
BodyText	Topography·and·bathymetry·data·for·Jamaica·Bay·and·saltmarsh·wetlands·(North·American·Datum·of·1983·[NAD·83],·UTM·Zone·18,·and·North·American·Vertical·Datum·of·1988·[NAVD·88])·were·derived·from·two·sources:·(1)·National·Oceanic·and·Atmospheric·

The Review Ribbon

eXtyles makes use of Word's reviewing tools, including comment balloons. Comment **balloons** appear in Word's Print Layout view and are best viewed and manipulated when the Word Review ribbon is selected. Comments that are inserted during eXtyles Advanced Processing can also be viewed by rolling the mouse over the comment insertion point in Word's Draft view.

To view comments, the Display for Review window on the Review ribbon must be set to All Markup (in Word 2010 this option is called Final Showing Markup).
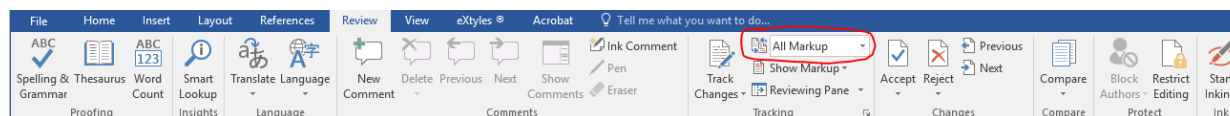
The eXtyles ribbon also includes many of the basic features of the Word Review ribbon, including comment and track change navigation and Display for Review options.
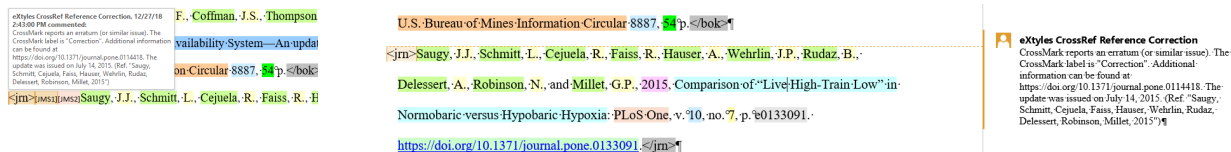
In Draft view, hover over comment tags to see the contents.

In Print Layout view, comments are included as marginal balloons.

Word Comments

Word comments are automatically inserted during some Advanced Processes (e.g., Bibliographic Reference Processing) if eXtyles has discovered an error or ambiguity that requires editorial review (or a query to the author). They may also be inserted by hand with the Comment option from the Review tab. Comments, or queries, are automatically renumbered, and they are placed appropriately in the XML during export.

You can view and manipulate comments via functions on the Word Review tab from the Balloons section of the Track Changes Options dialogue. Adding or deleting Word comments will automatically renumber the remaining comments.

> ⚠ **Note**
>
> eXtyles will preserve any Word comments that exist in the document prior to Activation.

> ⚠ **Word's Modern Comments**
>
> Recently Microsoft began a rollout of a significant change to comments in Word. Called Modern Comments, this new comment format is suboptimal in a couple of important ways relative to eXtyles. Please see our FAQ about Modern Comments and eXtyles and reach out to the Inera support desk with any questions.

Comments added by Advanced Processing functions are labeled with the "author name" of the appropriate Advanced Processing menu item. If you have added other comments (or if you are using Word 2010 or 2007), the comments will appear with your name. You can select to see comments from a specific reviewer, or just from a specific Advanced Processing function, by selecting Specific People from the Show Markup option on the Review ribbon.
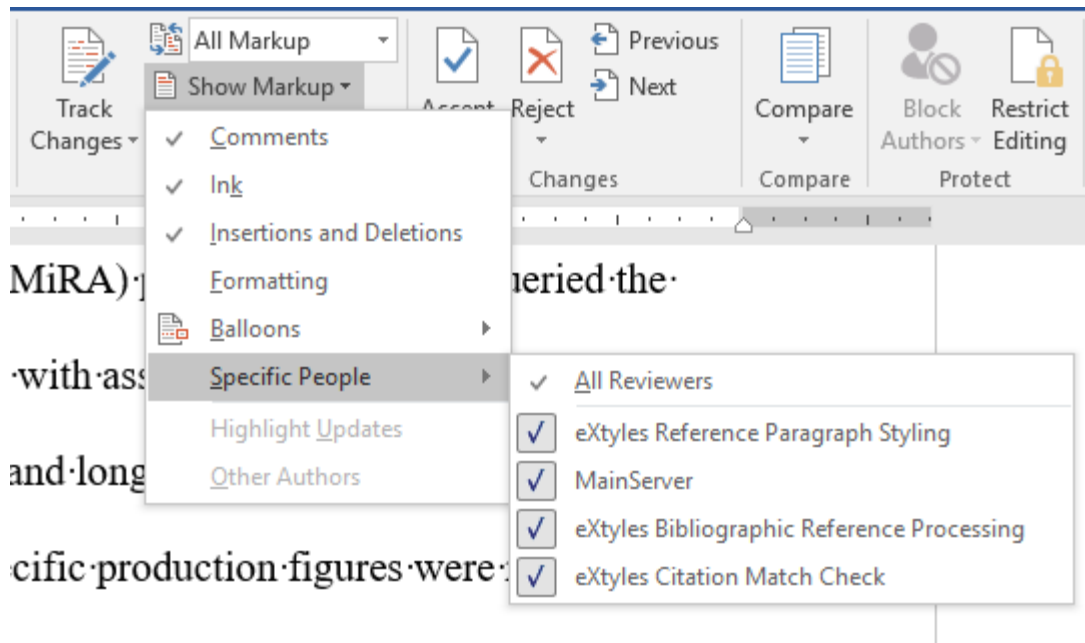
If an eXtyles Advanced Process adds an unusually large number of queries and you would like to delete all queries from that process, use the Remove Word Comments function in the eXtyles Cleanup dialog. Be sure to first click Clear All, and then check Remove Word Comments, and select the specific process (e.g., eXtyles Citation Match Check) for which you would like to remove the comments.
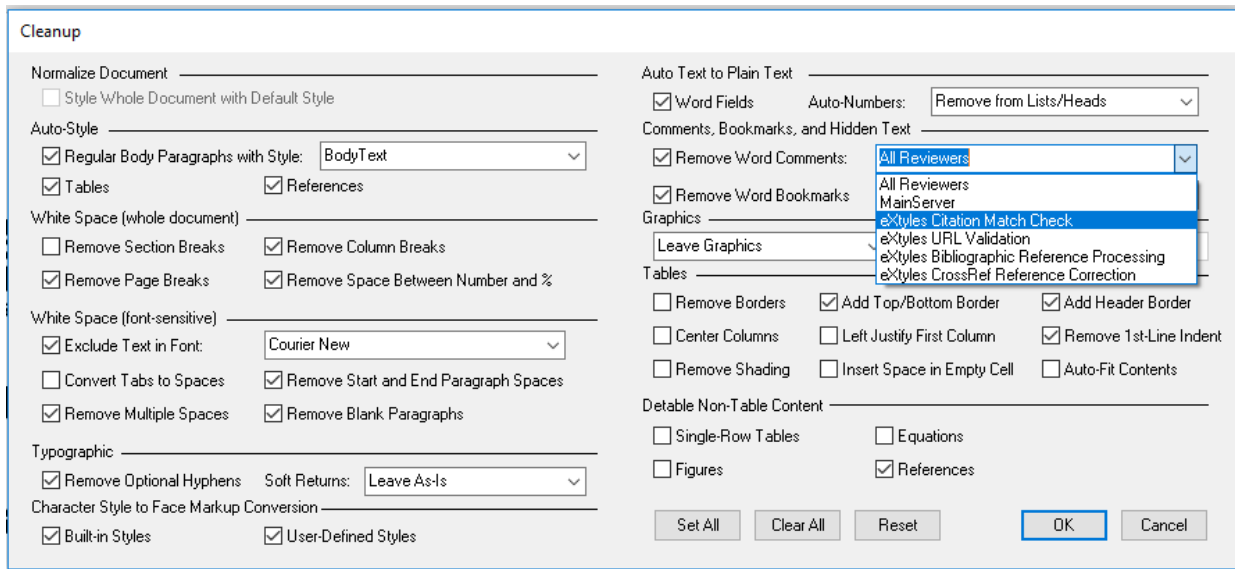
Overview of eXtyles

eXtyles allows you to automate editing, styling, and XML creation in the familiar Microsoft Word environment. It provides a bridge between editorial departments, which need easy-to-use tools, and production departments, which increasingly need XML for web, print, and ePub production.

eXtyles extends the functionality of Word by automating the formatting and structuring of documents derived from various sources and by enforcing specific editorial style requirements. It is an integrated suite of tools that simplifies the time-consuming and error-prone aspects of cleaning up, styling, and editing content. eXtyles enables you to:

- Mold Word documents into a standard style
- Automatically edit references to a preferred style
- Check Harvard- or Vancouver-style reference citations
- Export valid XML directly from Word (NLM and other DTDs)
- Improve editorial quality and cut production costs

Every version of eXtyles offers specific editorial features as well as XML export options customized for each publisher's unique workflow needs.

Stages: Reviewing the eXtyles Ribbon

eXtyles processing is performed in stages, where each stage represents a step in the document's life:
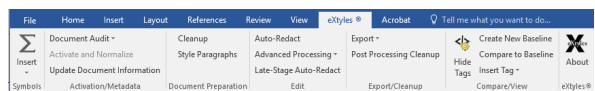
1. **Activation/Metadata**: The document acquires an "identity" in the form of metadata.

2. **Document Preparation**: The document as a whole is cleaned up, structured, and styled.

3. **Edit**: The document content is automatically edited and validated for consistency and accuracy.

4. **Export/Cleanup**: The processed document is cleaned up
in preparation for production, or it is exported to XML.

Those four stages are used to organize the various eXtyles functions into groups on the eXtyles ribbon. As a general rule of thumb, eXtyles functions are applied in the order that they appear in the menu, working from top to bottom and left to right. You will notice that when a document is first opened in Word, only the Document Audit and Activate and Normalize options are available on the eXtyles ribbon. Once a document is successfully activated, all other eXtyles functions will become available.

A typical document may go through the following processes, in order:

1. **Perform Document Check**: Review your document for unusual formatting.

2. **Document Audit > Font Audit**: Automatically check the fonts used in the document for compatibility with eXtyles processing.

3. **Activate and Normalize**: Provide document metadata and automatically normalize the document.

4. **Cleanup**: Automatically remove unnecessary white space and formatting attributes and apply default paragraph styles.

5. **Style Paragraphs**: Apply custom paragraph styles to document content.

6. **Auto-Redact**: Automatically edit the document for consistency and correctness.

7. **Advanced Processing**: Automatically style and validate document content using a variety of custom processes.

> ⚠ **Note**
>
> All items on the Advanced Processing menu must be run in the order they appear, top to bottom.

8. **Late-Stage Auto-Redact**: Perform additional edits and checks on the content to ensure that it is ready for XML export.

9. **Export or Post-Processing Cleanup**: Automatically export your document to XML format, or cleanup your document in preparation for non-XML production.

Other functions on the eXtyles ribbon can be performed as necessary, in any order:

- **Update Document Information**: Modify the document metadata.
- **Insert Tag**: Insert tags for specific purposes, such as table size tags.
- **Create New Baseline**: Save a new $base copy of the document for comparison.
- **Compare to Baseline**: Review the differences between the working copy and previously saved $base versions of the document.
- **View Tags**: Toggle the display of eXtyles tags from Show to Hide.

The Insert Symbol Menu

The Insert Symbol menu on the eXtyles ribbon is, like Document Audit, always active. From this menu you can access commonly used symbols and special characters more easily than from Word's Insert Symbol menu on the Insert ribbon, because eXtyles has organized them into meaningful groups (e.g., lowercase Greek letters) and each symbol has an accompanying image to help with easy identification.

Further, the eXtyles USGS Insert Symbol menu includes a list of common Hawaiian characters.
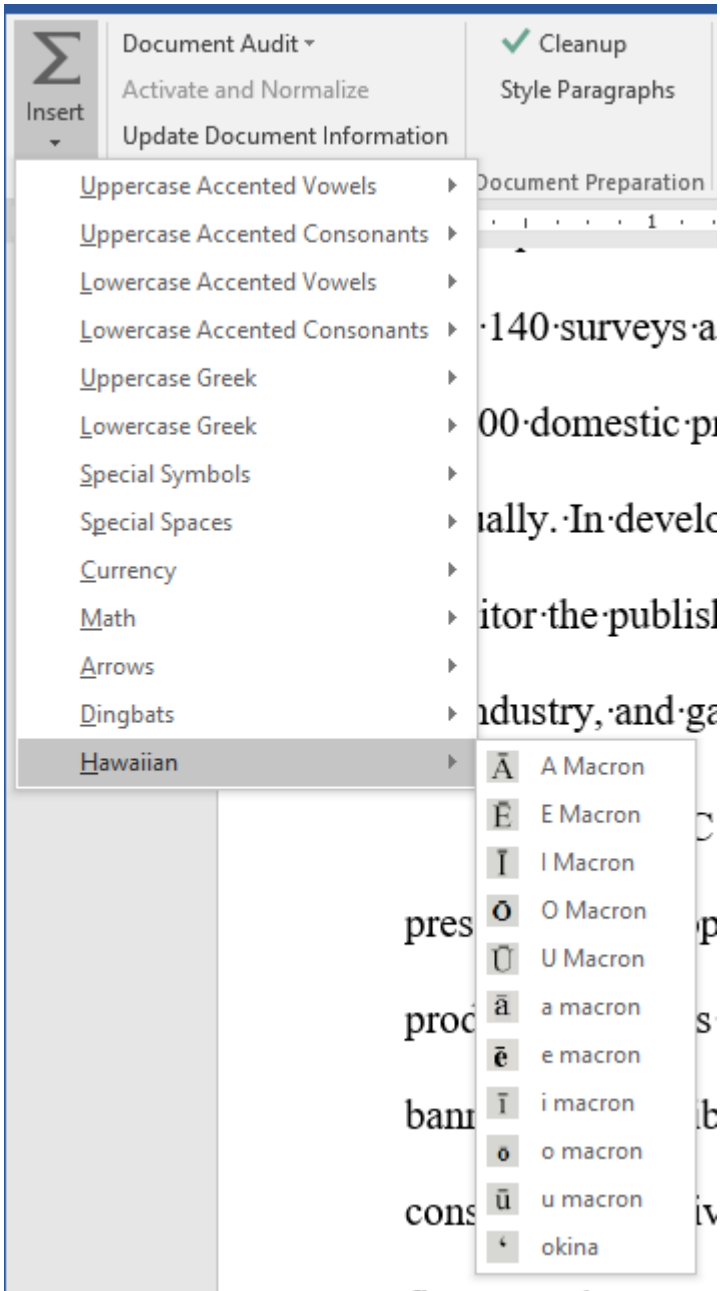
Document Preparation

The first step in the eXtyles process is Document Preparation. This section provides information on reviewing your document for unusual formatting, automatically checking the fonts used in your document, providing document metadata, and automatically normalizing your content.

Reviewing Your Document

When you first open a document in Word—before you start working with eXtyles—check the following items by giving the document a quick visual review for anything that might cause problems during eXtyles processing.

- Visual format
- Reference head
- Tables
- Graphics

Graphics

Graphics embedded in Word files may be left in place during eXtyles processing. However, for best performance Inera generally recommends removing these graphics during eXtyles processing. Embedded images increase the file size of your document and can cause eXtyles to perform much more slowly. If you prefer to leave graphics in the Word document, it is recommended that you insert linked images.

Some workflows may require linked images to be converted to embedded images after eXtyles processing. The following steps describe how to easily convert linked images to embedded images.

1. Click the File tab and to the right and down you will see the Related Documents section. (In Word 2010 and 2013 click the File tab and select "Info" to see the Related Documents section.)

2. Click Edit Links to Files, located under the Related Documents heading. Note that this option only appears if there is a linked file in your document.

Related Documents

    Open File Location

    Edit Links to Files

Show Fewer Properties
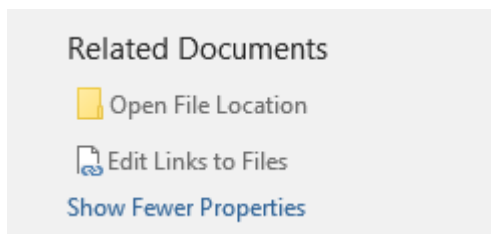
3. Select the linked files that you want to embed in your document.

4. Check the box for Save picture in document.

5. Click the Break Link button. A dialog opens; click Yes to confirm this action. The links are removed and the graphics are now embedded in your document.
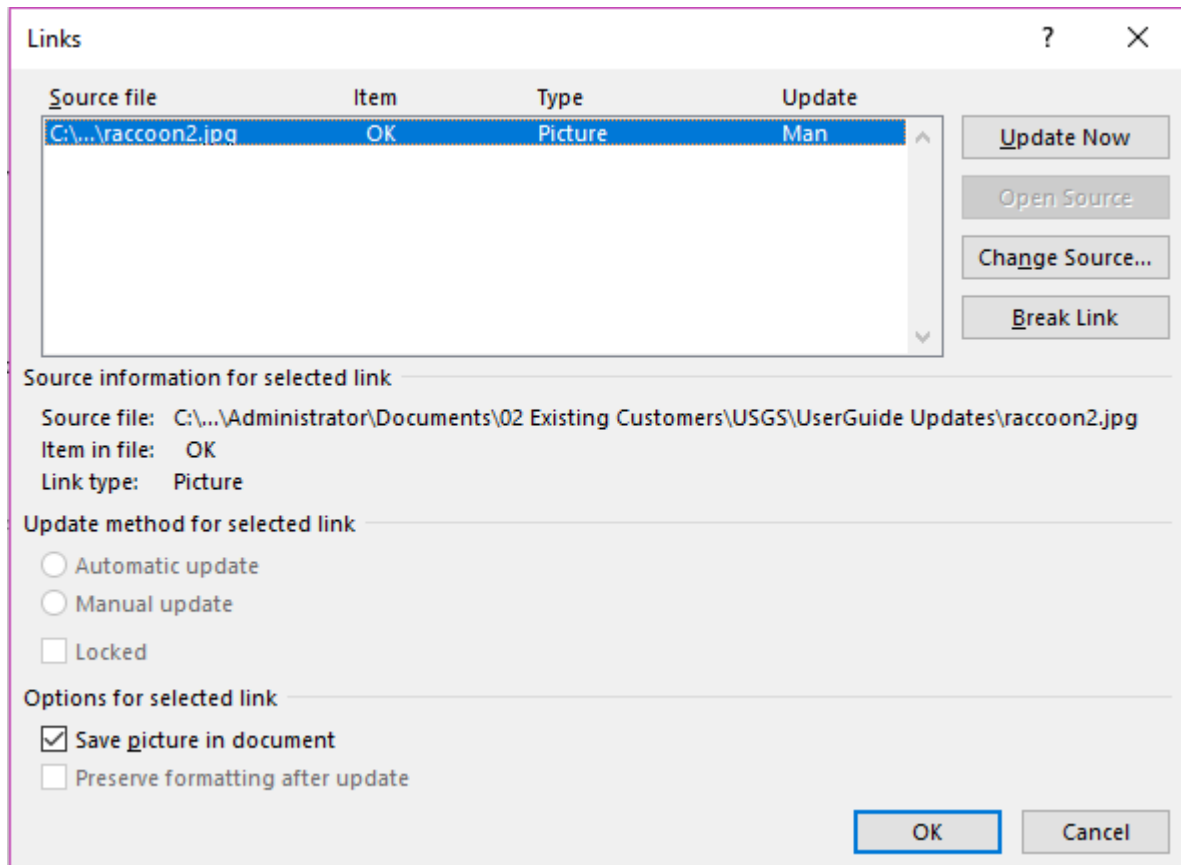
Reference Head

For documents that have Harvard-style (i.e., name–date) citations and therefore unnumbered references, the reference list should be preceded by a standard head such as "References," "Bibliography," and so on. eXtyles Auto-Styling, which runs during Cleanup, automatically applies the appropriate paragraph style to references, eliminating the need to manually style this section of the document. Although eXtyles can usually identify a numbered reference list without a reference head, unnumbered lists require a head for eXtyles to accurately identify the content.

Tables

Authors occasionally use a variety of creative methods to construct tables in Microsoft Word. eXtyles is optimized for tables that have been built using the Word table editor.

If tables are not converted to the Word table editor prior to eXtyles activation, you may lose the layout of the table, or some eXtyles functions may not work correctly.

Before activating a document with eXtyles, you should convert all tables built in other ways (e.g., tab-delimited, Excel table, etc.) into Microsoft Word tables. For more information about identifying and converting tables, please see the eXtyles guide, "A Table is a Table is a Table," available at **http://www.inera.com/support/additional_guides**.

Correct: Table formatted using Word's table editor.

Incorrect: Table formatted using tabs and hard returns.

Visual Format

Look to see if the document has any formatting that is particularly unusual (e.g., especially large or small fonts, odd typefaces, garbage characters). Such formatting problems may indicate a document that was poorly imported from another word processing program or that will cause other problems as you work with it. If you encounter a document like this, determine which word processor the author used.

To facilitate the visual check of a manuscript, we recommend setting Field Shading in Microsoft Word to Always. This setting will cause all embedded fields (such as citations and references set up with reference management tools such as EndNote) to appear with a gray shade. Often this gray shading will aid in identifying potential problems in Word documents.

To enable Field Shading, select the File tab in Word and navigate to Word Options > Advanced > Show document content > Field shading, and change from When Selected to Always.
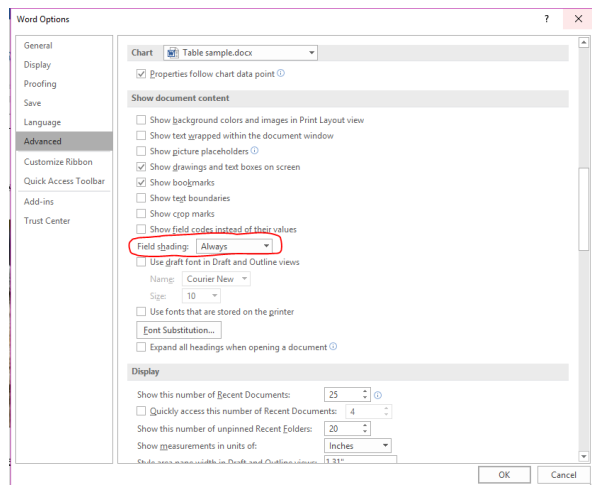
In Word Options, set Field shading to Always.

Fields in the document are shaded for easy identification.

Document Audit: Font Audit

Once your document check is complete, as described in "**Reviewing Your Document**," you're ready to begin using eXtyles.

The first step in using eXtyles is Document Audit, the first item on the eXtyles menu/ribbon, which contains the Font Audit menu item. Select Font Audit to perform the Document Audit.

A dialog box will appear listing all the fonts that have been used in your document and whether they are supported in eXtyles.
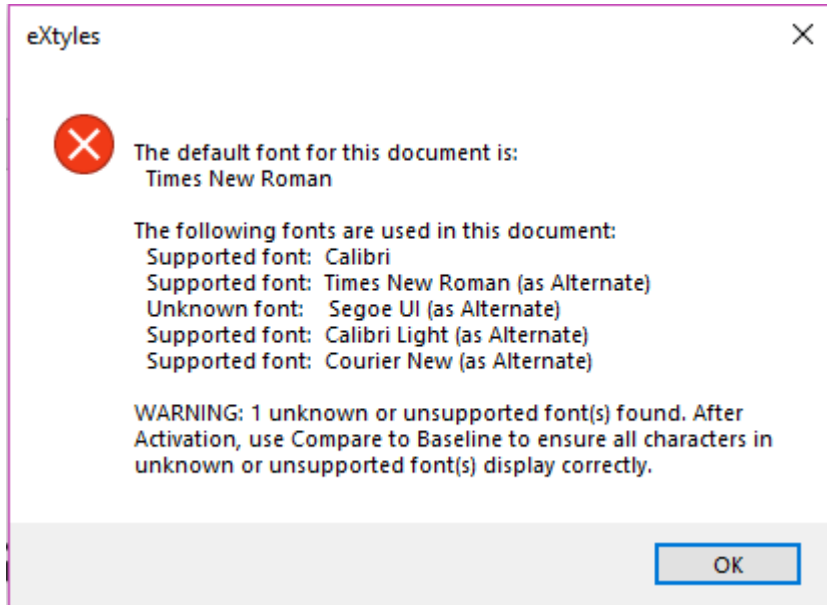
When the Font Audit dialog box appears, review the list of fonts. Fonts fall into one of the following categories:

- Windows fonts that are supported by eXtyles
- Special character fonts that are supported by eXtyles
- Macintosh fonts that are supported by eXtyles
- Special character fonts that are not supported by eXtyles

Follow any instructions that appear in the dialog box. For most documents, reviewing the list is all that is necessary, because most common fonts (e.g., Times, Arial, Courier, Symbol) are fully supported. In general, any font with a standard character layout is fully supported. Font Audit detects when an author may have used a special character font that is not supported by eXtyles.

Font Audit must be run on each document prior to Activation with eXtyles (Activation is described in the following section, "**Activate and Normalize**"). If you run Font Audit after document Activation, the results may not be accurate, and you will see the following warning dialog:

eXtyles   ✕

WARNING: Font Audit is best used BEFORE eXtyles Activation.
Use of Font Audit after Activation may cause unsupported fonts
to be inaccurately listed.

The default font for this document is:
 Times New Roman

The following fonts are used in this document:
 Supported font: Calibri (as Alternate)
 Supported font: Times New Roman (as Alternate)
 Supported font: Arial Narrow (as Alternate)
 Unknown font: Univers 57 Condensed   (Alternate: Times New Roman) (as Alternate)
 Supported font: Arial (as Alternate)

WARNING: 1 unknown or unsupported font(s) found. After Activation, use Compare to Baseline to ensure all characters in unknown or unsupported font(s) display correctly.

OK

In some cases, you will see "????" or numeric characters as the name of a font. This usually happens when an author has used MS Mincho or PmingLiU. You should be alert for special character problems in this situation, but usually none are reported.

Supported Fonts

The following lists include fonts are are explicitly supported by eXtyles. Note that when fonts have bold or italic variants, those faces are also supported. However, because of the vast number of fonts available, this list is not all-inclusive.

⚠ The USGS commonly used fonts FGDCGeoAge and Hydro are fully supported in eXtyles.

Normal Windows Fonts	Special Character Fonts	Macintosh Fonts
Arial Greek, Baltic, CE (Central Europe), Cyr (Cyrillic), Tur (Turkish), Arabic, Hebrew	Adobe Mathematical Pi 1 through 6	Chicago
Calibri	Arial Special G1	Geneva
Cambria, Cambria Math	Arial Special G2	Helvetica
Courier	Euclid	Monaco
Courier Greek, Baltic, CE (Central Europe), Cyr (Cyrillic), Tur (Turkish)	Euclid Extra	New York
Courier New	Euclid Fraktur	Times

Courier New Greek, Baltic, CE (Central Europe), Cyr (Cyrillic), Tur (Turkish), Arabic, Hebrew	Euclid Math One	Symbol
Garamond	Euclid Math Two	
Gulim	Euclid Symbol	
Lucida, Lucida Sans, Lucida San Unicode	FEBTechnical	
MS Mincho (may appear in Word files from Asian authors)	Map Symbol	
Palatino	Marlett	
PMingLiU (may appear in Word files from Asian authors)	Math Ext	
SimSun	Monotype Sorts	
Tahoma	MT Extra	
Times	Multinational Ext	
Times New Roman	Symbol	
Times New Roman Greek, Baltic, CE (Central Europe), Cyr (Cyrillic), Tur (Turkish), Arabic, Hebrew	Times New Roman Special G1	
Tms Nw Rmn	Times New Roman Special G2	
Univers	Wingdings	
Verdana	Wingdings2	
	Wingdings3	
	Zapf Dingbats	
	WP BoxDrawing	
	WP Greek Century	
	WP Greek Courier	
	WP Greek Helve	
	WP IconicSymbolsA	
	WP IconicSymbolsB	
	WP MathA	
	WP MathB	
	WP MultinationalA Roman	

	WP MultinationalA Courier	
	WP MultinationalA Helve	
	WP MultinationalB Roman	
	WP MultinationalB Courier	
	WP MultinationalB Helve	
	WP TypographicSymbols	
	SILDoulos IPA93*	
	SILDoulosIPA*	
	SILManuscript IPA93*	
	SILManuscriptIPA*	
	SILSophia IPA93*	
	SILSophia IPA93*	
	SILSophiaIPA*	

*The SIL phonetic fonts are supported only if you have licensed the eXtyles Phonetic Fonts Pack.

Unsupported Fonts

The following lists include fonts that are not yet supported by eXtyles. This list is not all-inclusive—it is merely a list of those special character fonts of which we are aware, but have not built tables to support.

Math Fonts	Phonetic Fonts	Other Special Character Fonts
UniversalMath1 BT	IPAKiel	Bookshelf Symbol
UniversalMath I	IPARoman	Dingbats
	IPAPhon	WP Arabic
	Phonetics	WP Hebrew
	TechPhonetic	WP Japanese
	Times PhoneticAlternate	
	Times PhoneticIPA	
	WP Phonetic	

Activate and Normalize
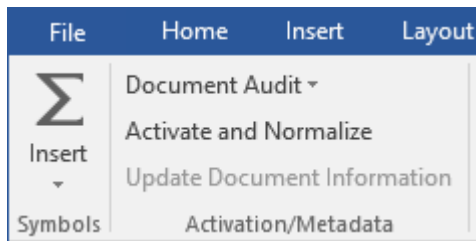
Once the Font Audit step has been performed, the next step is Activate and Normalize. In this step, eXtyles **activates** your document (allows it to be processed) and **normalizes** it (prepares it for processing). The Activate and Normalize function follows these steps, some of which are automatic:

1. Save a baseline copy of the document (an automatic operation)
2. Document normalization (an automated and, in some cases, interactive operation)
3. Set document information (an interactive operation)

Before you select the Activate and Normalize function, only the eXtyles options Document Audit, About eXtyles®, and Activate and Normalize are available in the eXtyles menu/ribbon.

Document Normalization

After the baseline document has been saved, eXtyles automatically normalizes your document (performs initial document preparation), which includes the following operations:

1. Accept all changes if Track Changes is turned on and there are tracked edits in the document, and then turn off Track Changes.
2. Normalize font-offset combinations for special characters.
3. Apply a temporary monospace-font paragraph style to paragraphs that are entirely in a monospace font but not in a monospace-font paragraph style; this step allows flexibility during the Cleanup stage. See the section "**Cleanup**" for more information.
4. Remove unnecessary text formatting (such as font size and font color changes)
5. Footnotes and endnotes are unlinked and converted to plain text.

> ℹ️ **Tip**
>
> Activation can provide additional document cleanup by removing all unused character and paragraph styles. Hold the Shift key and press OK on the Document Information dialog to open the Remove Unused Styles optional dialog, and select Yes to remove unused styles. This feature can be used to Activate problematic Word documents that contain a large number of styles.

Additional document preparation steps might be necessary before other eXtyles functions can be executed. Typically, tables that are set as text rather than using Word's table editor require preparation and cleanup prior to Activation and Normalization.

Save a Baseline Copy

When you select the Activate and Normalize function, eXtyles automatically saves a baseline copy of the document in native Word format in the same directory in which the original document is located. The baseline document is saved with "$base" appended to the end of the document name (e.g., 123_Mauscript$base.doc).

If the original document is not in native Word format—that is, it is not a .doc or .docx file—eXtyles prompts you to save the document as a Word file before continuing. After you save the document in native Word format, eXtyles creates the baseline copy automatically.

If you want to create additional baseline documents later in the eXtyles process, you can use the Create New Baseline function on the eXtyles ribbon to create additional copies of the document; see "Create New Baseline."

> ⊗ **Warning**
> Never edit or manually modify baseline documents. If you open a baseline document, you will be prompted to open it in read-only mode. Make sure to choose "read-only" when opening the document so that it cannot be edited or modified.

Setting Document Information

In addition to the automatic background steps (Save a Baseline Copy and Document Normalization), when you select the Activate and Normalize function from the eXtyles menu, eXtyles displays the Document Information dialog, as shown in the accompanying images.

Use these dialogs to provide data about the document to eXtyles and select the style template to be used with the document. eXtyles saves and maintains this document-specific information with the document and includes the metadata in your exported XML.

When you first click Activate and Normalize you will be prompted to select the correct Publication from the drop-down, shown in the image to the right. This step is important, because eXtyles collects and compiles different metadata in the XML depending on the publication type; for example, eXtyles will construct the document's DOI based on the information collected in the Document Information dialog.

The publisher, USGS, automatically populates.

Once you select the correct publication and click OK, you will be presented with a second dialogue. This Document Information dialog collects important metadata, described here (required entries are italic; in the Document Information dialog, required entries are marked with an asterisk).
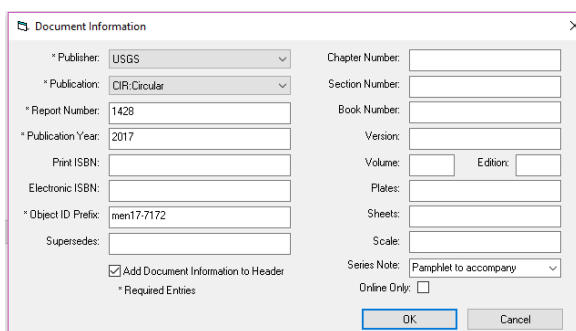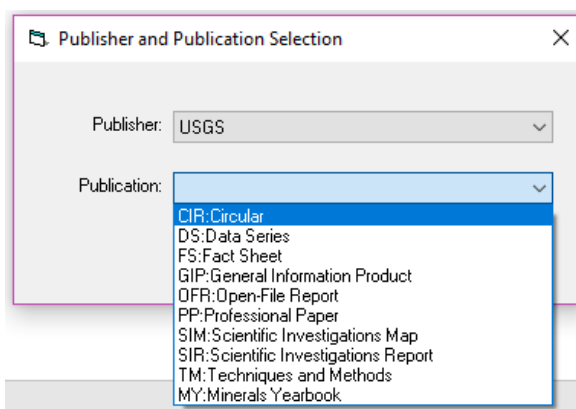
Report Number	Enter the report number or placeholder text if report number is not known
Publication Year	Enter the publication year or placeholder text if publication year is not known

Print ISBN	Enter the print ISBN, if known
Electronic ISBN	Enter the electronic ISBN, if known
Object ID Prefix	Enter the correct three-letter PSC designation, year, and unique number sequence (example: tac18-3071) from the product estimate number. This information will be used to construct the figure name during XML export; see also **Figures, Tables, and Sidebars**)
Supersedes	Add the information for the documents that the current one supersedes, if any; for example, "Open-File Report 2005–1392"
Chapter Number	The number or, more commonly, letter of the chapter, if any
Section Number	The section number, if any
Book Number	The number of the book, if any
Version	The version number, if any
Volume	The volume number, if any
Edition	The edition number, if any
Plates	The plate number; e.g., oversize product elements associated with report-type products (SIRs, professional papers, etc.)
Sheets	The sheet number (e.g., oversize product elements associated with maps). This field appears only if certain publications are selected in the previous dialog; for example, SIM
Scale	The scale used in the document; this field appears only if certain publications are selected in the previous dialog; for example, SIM
Series Note*	

Document Information

* Publisher: USGS
* Publication: SIM:Scientific Investigations Map
* Report Number: 3094
* Publication Year: 2018
Print ISBN:
Electronic ISBN:
* Object ID Prefix: tac78-18
Supersedes:

Scale: 1:10,000
Sheets:
Plates:
Version:
Series Note: Additional series info
Online Only: ☑

☑ Add Document Information to Header
* Required Entries

OK   Cancel

	The Series Note is a drop-down menu that includes the commonly used "Pamphlet to accompany" text. However, any text can be added to this field as needed.
Online Only	Check this box if the document will be published online only.

*This Series Note should be used if the document should have a "Pamphlet to accompany . . ." line on the title page of the PDF. Note that, when selected, the "Pamphlet to accompany" line (or, whatever text is added to that field) will not appear in the Word document. eXtyles will add the line to the metadata in the XML, and it will automatically be set on the title page of the PDF during layout.

If you want to replace the current document header and footer with some of the information collected in the Document Information dialog, check the Add Document Information to Header box. When this box is checked, the following dialog information is placed in the document header: (1) Publication (e.g., Techniques and Methods), (2) ID Number (i.e., Report Number), and (3) Publication Year. Further, page numbers in the form "page X of Y" are placed in the document footer. If the box is not checked, the header and footer are left as the author typed them.

Click OK to save the document-specific information.

> ✅ **Tip**
> Once you have Activated a document, you can change the document information at any point by selecting Update Document Information from the eXtyles menu/ribbon.

After the Activation and Normalization stage is complete, the entire eXtyles ribbon is enabled.
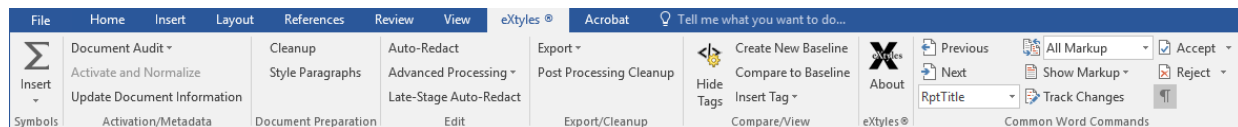
Styling and Editing

After you have Activated and Normalized your document, you can begin "Styling and Editing." This section provides information about automatically removing extraneous white space and formatting (Cleanup), and applying custom paragraph styles to the document.

Cleanup
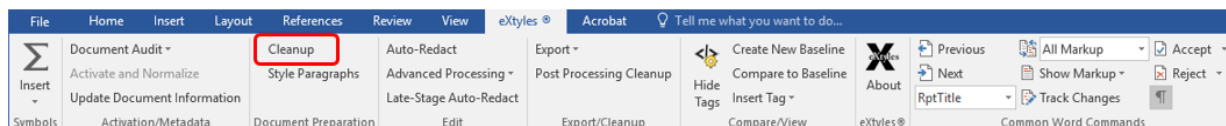
Use the Cleanup function to automatically remove unnecessary white space and Word formatting attributes that are not needed for eXtyles processing.

Select Cleanup from the eXtyles menu, and the Cleanup dialog (shown below) will open.

When the Cleanup dialog appears, you will see that default cleanup options have already been checked. You can always check the boxes of additional operations you want to include in the process, or uncheck those steps that you do not want to run on the document. Click OK to run Cleanup.

The eXtyles Auto-Style Regular Body Paragraphs option in the Cleanup dialog can be set to automatically apply your organization's custom body paragraph style to all main body paragraphs in the Word file, dramatically reducing the time spent manually applying paragraph styles to the manuscript.

The following Normalize and Auto-Style Cleanup options are performed on specific elements of your content.
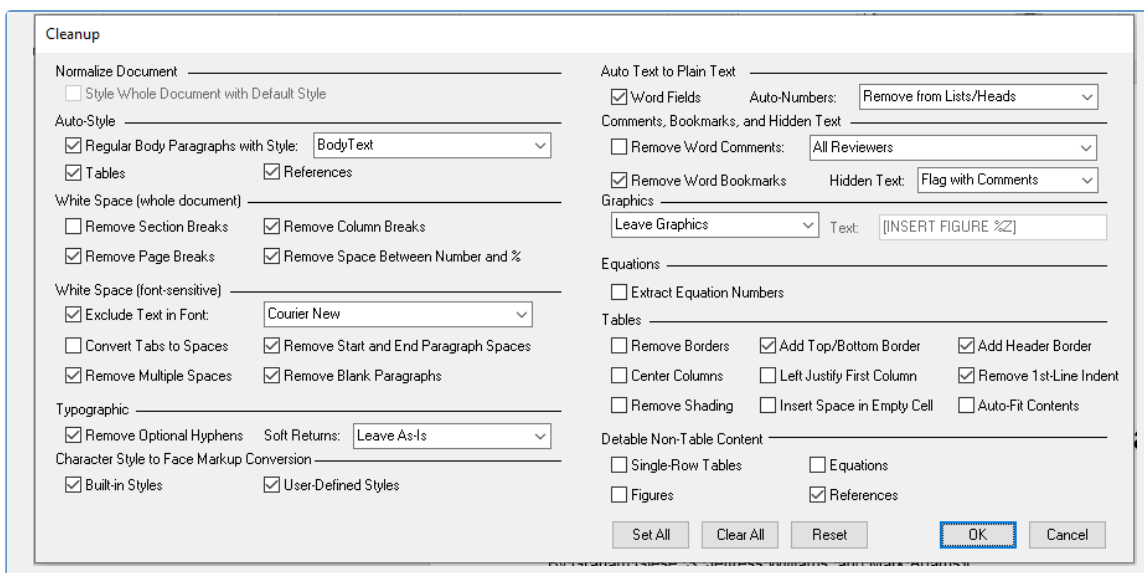
Normalize Document

Operation	Description

Style Whole Document with Default Style	All paragraph styles are converted to the Default Style (the Word style "Normal," unless a specific override is a part of your configuration).

Auto-Style

Operation	Description
Regular Body Paragraphs with Style	All regular body paragraphs are converted to the style selected in the drop-down box. Local italic and boldface markup is retained.
Tables	Tables created with the Word Table Editor are automatically styled with Table Head, Table Body, and Table Footnote paragraph styles. Table titles are automatically styled even if they are outside of the table.
References	Numbered references, or unnumbered references that follow a heading such as "References," are automatically styled as Reference paragraphs.

Auto-Style Regular Body Paragraphs Criteria

The eXtyles Auto-Style Regular Body Paragraphs with Style option in the Cleanup dialog can be set to automatically apply your organization's custom body paragraph style to all regular body paragraphs in the Word file, dramatically reducing the time spent manually applying paragraph styles to the manuscript.

The style will be applied to left-aligned paragraphs that start with an upper case letter unless one of the follow criteria is met:

- The paragraph is styled as MTDisplayEquation (i.e., a MathType Display or Right-numbered equation), Footnote Text, or Endnote Text. To configure this criterion, please contact your eXtyles representative.
- The paragraph is not a Body Text level paragraph in Word's Outline view.
- The paragraph begins with a left indent.
- The entire paragraph is in the selected font for Preformatted text (e.g., Courier—this font can be preset in your configuration or can be selected from the Cleanup dialog) or in the font of Word's HTML Preformatted style. To configure this criterion, please contact your eXtyles representative.

- The entire paragraph is styled with an ALL CAPS or small caps font or character style.
- The paragraph is shorter than the default 60 characters and ends with a period.
- The paragraph is manually entered in all capital letters and is shorter than the default 60 characters. To configure this criterion, please contact your eXtyles representative.
- The paragraph starts with an inline shape (e.g., an embedded graphic).
- The paragraph starts with a word that suggests a table or figure caption (e.g., "Table," "Figure," "Fig.," "Plate"), followed by punctuation (period, colon, em or en dash, or hyphen), a table or figure number followed by punctuation, or the end of the paragraph. The lists of caption words include words for "figure" and "table" in a number of European languages; to configure these lists, please contact your eXtyles representative.
- The first character of the paragraph is bold, italic, underline, superscript, raised, or lowered.
- The first character of the paragraph is a digit.
- The first character of the paragraph is a special character in a special character font (e.g., Symbol). Special characters include but are not limited to: opening parentheses, square brackets, angle brackets and braces, asterisk, daggers, raised dot, dashes, and bullets.

- The first character of the paragraph is an opening parenthesis, square bracket, angle bracket or brace, asterisk, raised dot, or dash, and is not in a special character font.

White Space (Whole Document) Settings

The following White Space Cleanup options are performed on the entire document.

Operation	Description
Remove Section Breaks	Word's section breaks are removed.
Remove Page Breaks	Word's page breaks are removed.
Remove Column Breaks	Word's column breaks are removed.
Remove Space Between a Number and %	Spaces between a number and the % sign are removed.

White Space (Font-Sensitive) Settings

The following White Space Cleanup options may be set to exclude text in a specified font. Please see the description of this feature following the table for more information.

Operation	Description
Convert Tabs to Spaces*	Each tab character is converted to a single space.
Remove Multiple Spaces	Multiple spaces are converted to a single space. Note that this step is performed after converting tabs to spaces, so all extra white space is removed.
Remove Start and End Paragraph Spaces	Leading and trailing spaces in paragraphs are removed. Note that this step is performed after converting tabs to spaces, so all extra white space is removed. Non-breaking spaces and soft returns are also removed.
Remove Blank Paragraphs	Blank paragraphs are removed.

*Tabs are required for the proper XML export of some elements (e.g., between a term and definition in an abbreviations list). Because of this, the USGS default cleanup setting is to retain all tabs in the document. However, if during your visual scan of the document you notice that there is no term and definition content in the document (e.g., Abbreviations, DMU), you may choose to have eXtyles Cleanup remove tabs by selecting this option.

White Space Cleanup: Excluding Paragraphs in a Specified Font

In some documents, you might wish to run white space–related Cleanup features but exclude certain paragraphs from this type of cleanup. For instance, programming code often has intentional blank lines and intentional leading spaces that should not be removed during Cleanup, although the rest of the document should have no blank lines. The same is true for verse and poetry, in which white space is often intentional and should be retained.

So that users don't have to forgo use of the white space Cleanup features entirely, eXtyles allows users to specify that paragraphs in a particular font should not be affected by some of the white space–related Cleanup options. That is, you can set computer

code in Courier and specify that paragraphs in Courier should not be affected by white space cleanup operations; you can set verse in a font such as Garamond and specify that paragraphs in Garamond should not be affected by white space cleanup operations.

You can protect additional text by selecting a specific font to exclude from white-space cleanup.
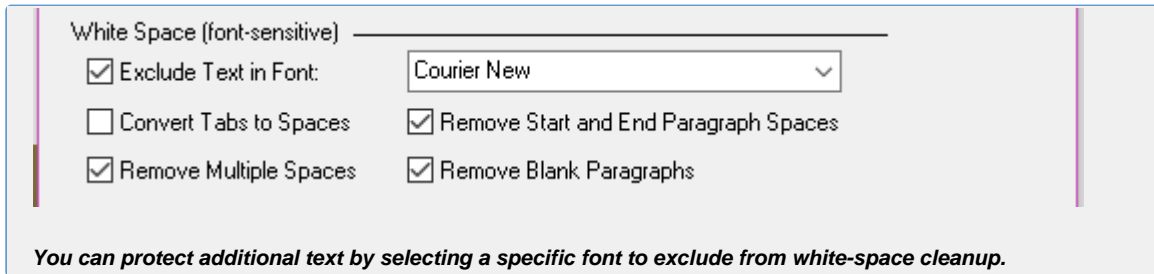
The ability to exclude paragraphs from white space–related Cleanup features is optional. If you prefer, you may still run all Cleanup features on all paragraphs in your documents by leaving the Exclude Text in Font checkbox unchecked.

The following subset of white space Cleanup options may (optionally) be set to not run on paragraphs in a specified font:

- Convert Tabs to Spaces
- Remove Multiple Spaces
- Remove Start and End Paragraph Spaces
- Remove Blank Paragraphs

To use this feature, check your document for elements that eXtyles should skip when running these options. After Activation, eXtyles will automatically protect paragraphs that are in a constant-width font or that are correctly tagged with a paragraph style that is set in a constant-width font. You should check any verse/poetry paragraphs to make sure they're in a font that isn't used elsewhere in the document and apply such a font if necessary.

In addition, the paragraphs in question must be entirely in the excluded font; paragraphs in a mix of fonts will not be excluded from these Cleanup operations. For instance, if you have programming code paragraphs that contain both Courier and Courier New, select the entire code block and change the font to either Courier or Courier New. Then specify that font as the excluded font in the Cleanup dialog. Similarly, set the font of any verse or poetry sections that should not be affected by these options to a font that doesn't appear elsewhere in the document, and then specify the chosen font as the excluded font in the Cleanup dialog.

eXtyles will then not apply the white space–related Cleanup functions to paragraphs in the specified font, which means that tabs, extra spaces, leading and trailing spaces, and blank paragraphs will be retained for paragraphs that are in the specified font.

Authors sometimes apply a code (monospace) font instead of using a monospaced paragraph style. eXtyles protects these paragraphs from white space Cleanup as well.

During Activation, eXtyles checks the document for paragraphs that are in a monospace font but not a monospace-font paragraph style. eXtyles then applies a monospace-font paragraph style (HTML Preformatted) to exclude these paragraphs from the subset of white space operations during Cleanup. The HTML Preformatted paragraphs can then be styled as usual during the Style Paragraphs stage.
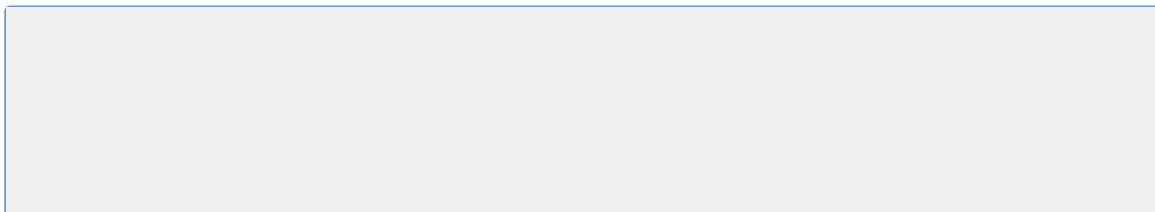
By using the HTML Preformatted paragraph style, eXtyles Activation protects from white space cleanup paragraphs that are in a monospace font.

When you use this feature and exclude paragraphs in the specified font, the Cleanup features Normalize Document and Auto-Style will also automatically skip paragraphs in the specified font, so that code or verse or otherwise protected paragraphs will not be tagged with your base paragraph style.

Typographic Settings

Operation	Description
Remove Optional Hyphens	Discretionary hyphens are removed.
Soft Returns	Soft returns—that is, line breaks inserted with Shift + Enter—are converted to spaces or hard returns.

Character Style to Face Markup Conversion

Operation	Description
Built-in Styles	Converts Word's built-in character styles, such as Emphasis and Strong, to plain face markup. This conversion may exclude the Word character styles for "Hyperlink," "Footnote Reference," "Endnote Reference," and "Comment Reference," depending on your configuration.
User-Defined Styles	Converts cases of user-defined character styles to plain face markup. This conversion is most important in preparing the document for advanced processing functions.

Auto Text to Plain Text

Operation	Description
Word Fields	Word fields are converted to text. In particular, fields generated by add-in products such as EndNote are automatically converted to plain text.
Auto-Numbered Headings and List	Numbers generated with Word's auto-numbering feature in headers and in numbered lists are converted to plain text.

Comments, Bookmarks, and Hidden Text

Operation	Description
Remove Word Comments	Remove Word comments in the file. The default is to remove all comments. You can also remove comments from specific reviewers by selecting the reviewer from the drop-down list.
Remove Word Bookmarks	Remove Word bookmarks from the file. We recommend selecting this option to avoid conflicts with eXtyles Advanced Processes.
Hidden Text	Warns when hidden text is present in the document, and reveals it in one of two ways: (1) Flag with Comments (default), (2) Make Not Hidden, or (3) Leave As-Is.

Graphics

Operation	Description
Leave Graphics/Remove Graphics/Export and Remove Graphics	eXtyles Cleanup can remove all graphics from your manuscript, allowing eXtyles functions to work faster. The default setting is to leave graphics as they are ("Leave Graphics"), or you can select "Remove Graphics" and "Export and Remove Graphics." If you choose to export graphics, they will be placed in a subfolder of the document and named according to the document. Equations and Excel worksheets are not removed when this option is selected. Advanced configuration capabilities for this option are available.
Graphics replacement text box	When you choose to remove graphics, they are replaced with a text string to identify where they were located and to identify to which exported file they correlate. The default text is "[INSERT FIGURE %Z]" where "%Z" becomes "001," "002," and so on, as sequential graphics are removed. This text may be altered to meet your specific needs. Note: This option is disabled unless you select "Remove Graphics" or "Export and Remove Graphics."

Tables

Operation	Description
Remove Borders	Removes borders on all cells and on the entire table. Unchecked by default.
Center Columns	Centers text in all table columns. Unchecked by default.
Remove Shading	Removes all shading in tables. Unchecked by default.
Add Top/Bottom Border	Adds an x-pt. rule to top and bottom of all tables. Unchecked by default.
Left Justify First Column	Left-justifies text in first column of all tables. Unchecked by default.
Insert Space in Empty Cell	Inserts a single non-breaking space in empty tables cells. Checked by default.
Add Header Border	Removes any specific width settings and applies auto-fit to all table cells. Unchecked by default.

Remove 1st-Line Indent	Unindents the first line of all table cells. Unchecked by default.
Auto-Fit Contents	Applies auto-fit to all table cells. Unchecked by default.

Extract Equation Numbers

Starting in May 2020, eXtyles can locate equation numbers that have been added inside Word Equation Builder objects and move them outside of the math object. This is necessary for Citation Matching to work correctly (i.e., the correct application of the cite_eq character style to citations of equations), because eXtyles will not detect the equation number if it is inside the Equation Builder math. Only equation numbers placed after the equation, and which are the last content in the paragraph, will be moved by this functionality.

Detable Non-Table Content

Occasionally content in your document may be incorrectly formatted in a Word table. For example, the author may have used table cells to achieve white space between an equation and its number:

Then:¶

$$\Delta T_w = 32.0 - 19.5 - 12.5\,^{\circ}\mathrm{C}.$$
15.3¤   ¤
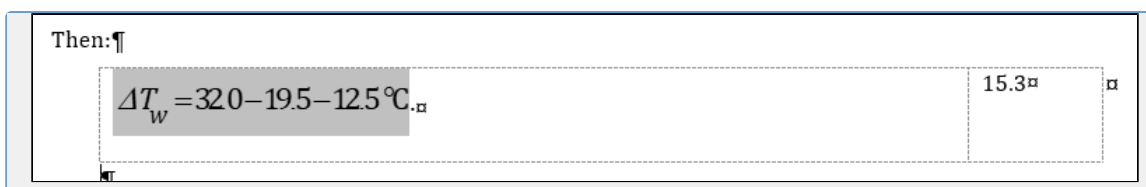
This content should not remain in table cells and eXtyles Cleanup can automatically "detable" such content.

For all of the following functions, content will *not* be detabled if:

1. The table is preceded by a paragraph that eXtyles identifies as a table title
2. The table is followed by a table title that is not itself followed by another table
3. The first row of the table contains a table title

Single-Row Tables

This Cleanup option finds all tables that are just one row and converts them to either tab-separated text, if the contents of the table looks like an equation, or otherwise paragraph-separated text.

Equations

Finds all tables that have content in just two columns (discounting empty cells), with an equation (i.e., a, Equation 3.0 or MathType object or a Word Equation Builder object) in one cell and an equation number in the other cell, regardless of the number of rows. These tables are then converted to tab-separated text.

Figures

Finds all tables that contain only (1) images, (2) figure captions, or (3) panel captions or panel labels. If the table contains more than one figure caption, then the text is separated as paragraph-separated text; otherwise the table is converted to tab-separated text.

References

Finds all tables that are preceded by a reference list title and contain no more than two columns of content, and converts them to tab-separated text. This option is selected by default on the Cleanup dialog.

Additional Cleanup Dialog Features

The Cleanup dialog contains three buttons, located along the right-hand side of the dialog box, to allow rapid setting selections:

- Set All: Select all options in the dialog.
- Clear All: Clear all options in the dialog. Click this button first if you want to run just a single operation, such as removing comments from a specific reviewer only.
- Reset: Set the default check boxes of the dialog to the default choices.

Style Paragraphs
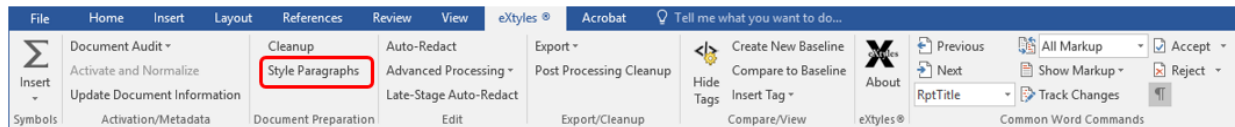
Instead of applying a paragraph style to each paragraph via Word's menus or style list, you can use the eXtyles Style Paragraphs function to easily apply the styles from your eXtyles template.

The efficient style palette used in eXtyles lets you quickly and easily apply the correct styles to each individual paragraph. Each of the USGS's paragraph styles is mapped to the eXtyles style palette, where it appears as a button. You can also quickly traverse the document and confirm or change the style of each paragraph using the convenient "Undo," "Next," and "Previous" buttons.

The following sections describe the organization of the USGS eXtyles palette, the styles on the tabs, and what the styles should be used for.

How to Use the eXtyles Style Palette

> ⚠️ **Note**
>
> SIM and TM documents have style palettes that are different from those for other USGS publication types. This is because SIM and TM documents have text elements that are either unique to them (e.g., SIM) or are structurally much simpler than other publication types (e.g., TM).
>
> This means that a document Activated as an OFR will have access to the Chap Tab (see below), but a document Activated as a TM will not.
>
> If you do not see the style tab you are looking for when you open the style palette, check to make sure that you have Activated the document as the correct publication type.

1. Select Style Paragraphs from the eXtyles menu. Styles in the eXtyles style palette are divided into different groups, or Tabs. The USGS style palette tabs are:

- **Title**: covering title page paragraphs
- **Front**: covering front matter content paragraphs
- **Body**: covering paragraphs in the body of the document
- **Chap**: covering items pertaining to chaptered documents *(tab does not appear for documents Activated as either SIM or TM)*

- **Obj**: covering lists, boxes, tables, and figures
- **DMU**: covering the Description of Map Units sections
- **Back**: covering back matter content paragraphs
- **App**: covering appendices and related content

2. When the Paragraph Styles dialog appears, select the desired tab and begin traversing the document, clicking the desired button to apply a style to the selected paragraph, or by using the navigation buttons at the bottom of the palette (see the section, USGS Styles for more information about the navigation buttons).

The selected paragraph is highlighted in its entirety. After you click a style button to apply a style to paragraph, the highlight advances automatically to the next paragraph.

You can also press the designated hot key—indicated by an underscored letter or number in the button's label—rather than clicking with the mouse. For example, you can press the "x" key on the keyboard instead of clicking "Next."

> ⊗ **Warning**
>
> The "Undo" history is cleared when you click into the Word document or close the palette.

Styling Options

You can also use the Word Paragraph Style menu as usual if you are applying a paragraph style to just a few paragraphs. If you use this method, please keep these points in mind:

- The name on the eXtyles Paragraph Style palette is not necessarily the same as the name of the actual Word style. Be sure to use the correct Word paragraph style.
- Word has a bug (Microsoft calls it a "feature") in which italic or bold markup or Symbol font changes in the middle of a paragraph may be lost when styles are applied from the Word Paragraph Style menu or ribbon. This problem is especially nasty in genetics papers, in which a gene may inadvertently be turned into a protein as a result. If you use this method of styling, be sure to proof the paragraph carefully.

Styling Tables

On the USGS eXtyles style palette, the buttons on the Object tab are used as follows.

- **Table Title**: Table number and table title.
- **Table Headnote**: The headnote for the table, or a continuation paragraph of the table title.
- **Table Heading**: Table head cells at the top of columns within the Word table.
- **Table Spanner**: Table internal heading.
- **Table Body**: Table body cells.
- **Table Footnote**: Table footnotes.
- **Table Title Repeating/Facing**: For use only for facing-page tables (see section below)
- **Table Group Begin**: For use only for facing-page tables (see section below)
- **Table Group End**: For use only for facing-page tables (see section below)

For ease of table styling and to ensure that all paragraphs in the document are properly tagged, Inera recommends that table footnotes be placed after the table (i.e., outside of the table grid), as in the following Simple Table example, although this is not a requirement.

When using the eXtyles palette, eXtyles normally applies the selected style to a whole row of cells at once. To apply the selected style otherwise, use the modifier keys as indicated in the following table while pressing the relevant button on the palette. See also the section **USGS Styles**.

Key	Action
(none)	Applies the specified style to an entire row (from the current cell to the end of the row).
Shift	Applies the specified style to the remainder of the table (from the current cell to the end of the row).
Control	Applies the specified style one paragraph within a cell at a time. If there is only one paragraph in a cell, this behavior is the same as Shift + Control.
Shift + Control	Applies the specified style to one cell at a time.

The Shift key is particularly useful when styling a table: as soon as you reach the point in the table at which all remaining cells are to be tagged as your table body style, for instance, you can hold down Shift and click on your table body style, and eXtyles will tag the rest of the table automatically!

Please note the following special information about styling tables with the eXtyles palette (as opposed to the regular Word Paragraph Style menu):

- When styling tables, empty cells are skipped.

    Using the eXtyles cleanup feature to add non-breaking spaces to all empty table cells ensures that all table cells are correctly styled

- eXtyles preserves any of the following format information that was previously applied to each cell by an author:
    - Alignment (left, right, center, justify, decimal)
    - Indents (first line, left, right)
    - Tab stops (e.g., decimal alignment)
    - Shading

    All of this information is respected during an eXtyles CALS or XHTML export.

- If the entire content of a cell is already in italic, bold, or underline, eXtyles will preserve this markup.
- If a paragraph style for a table cell specifies italic, bold, or underline markup, it will be applied to the entire content of the cell.

⚠ **Note**

Because eXtyles will preserve in the XML the table formatting described here, it is important to proof carefully tables in the Word document. For instance, if the author has applied shading to table cells but that shading is not intended to be included in the final product, it will be important to remove the shading from the table in the Word document before XML export.

Likewise, if decimal alignment is required in the final product, it will be important to proof carefully the format of the table in the Word document before export to make sure that decimal alignment has been applied.

Simple Tables

The following simple table shows the correct location of each style:

Table 1. This is a Table Title. It may be located within the table grid or outside of it.

[The Table Headnote appears in brackets, following the Table Title.]

Table Head	Table Head	Table Head
Table Body*	Table Body	Table Body
Table Body	Table Body	Table Body

*Table Footnote text. Any symbol, number can be used (or, no symbol/number).

Complex Tables

Paragraph styles can be used to add specific formatting to table content. Your configuration's list style can be applied to an individual table cell that contains a list using the Shift + Control shortcut; or to an individual list paragraph within a cell using the Control shortcut.

For tables that contain row headers mid-table, the table spanner head style should be applied, rather than table body (see the following example).

Table 1. This is a Table Title. It may be located within the table grid or outside of it.

[The Table Headnote appears in brackets, following the Table Title.]

Table Head	Table Head	Table Head
Table Body	Table Body	• List Level 1
		• List Level 1
Table Spanner		Table Spanner
Table Body	Table Body	Table Body
		• List Level 1
		• List Level 1

*Table Footnote text. Any symbol, number can be used (or, no symbol/number).

Facing-Page Tables

Occasionally, large tables will span a page spread during layout: we'll call these **facing-page tables**. These tables are uniquely complex, in part because their layout requires repetition of table content (e.g., titles, occasionally the first column, etc.). So that these tables can be set correctly during layout they must be carefully prepared in the Word document to generate the required markup in the XML.

Word and XML Examples
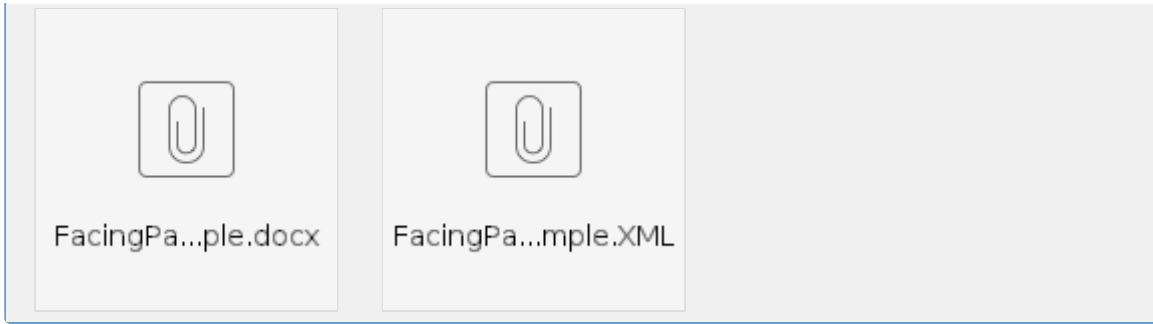
Paragraph Styles for Facing-Page Tables

In Word, the following paragraph styles should to be used for facing-page tables:

- Table Group Begin
- Table Group End
- Table Title Repeating/Facing

Beyond these specific styles, regular table styles should be used for the remaining table content.

The Table Group Begin and Table Group End styles indicate to eXtyles that all of the content within those paragraphs belongs to one large table, and eXtyles will then correctly group the content together in the XML.

> ⚠ The Begin and End paragraphs must contain text, which will be dropped from the XML.

Use the Table Title Repeating/Facing for the title of the second part of the table (the second table). This title is often different from the primary table title, because it will include a notation such as [-Right].

Station· no.¤	Gage·type¤	Agency·operating·gage¤	USGS·or·NOAA·NOS· CO-OPS·station·no.¤	Station·name¤	Latitude,·in· decimal· degrees¤	Longitude,· in·decimal· degrees¤	Period·of·record¤

Remarks¤	Conversion· from·gage· datum·to· NAVD·88,·in· feet¤	January·4,·2018·nor'easter¤				March·2-4,·2018·nor'easter¤			
		Highest·total· water·level· elevation,·in· feet·at·gage· datum¤	Highest· total·water· level· elevation,·in· feet·above· NAVD·88¤	Date¤	Time¤	Highest·total· water·level· elevation,·in· feet·at·gage· datum¤	Highest·total· water·level· elevation,·in· feet·above· NAVD·88¤	Date¤	Time¤

Format of Facing-Page Tables

In Word

Importantly, facing-page tables must be split into two distinct tables in Word: a left and right side (as shown in the previous example). This is an exception to the general eXtyles workflow rule of keeping all tables whole.

In the XML

When these styles are used and the tables are formatted as shown, the export process will produce a `<table-wrap-group>` in the XML that includes both sides of the table (the two separate tables in the Word doc).

```
<table-wrap-group>
   <table-wrap id="t05___1">
   …
   <table-wrap id="t05___2">
</table-wrap-group>
```

USGS Styles

This section describes the tabs of the USGS eXtyles style palette and explains how each style should be used.

Navigation

In addition to facilitating the application of paragraph styles, the eXtyles style palette enables quick and flexible navigation through your document via the controls on the bottom of the palette. By using these controls to navigate through and manipulate your content, you can remain within the style palette, which allows you to move more efficiently through the document.

> ✅ **Tip**
>
> Underlined letters on the palette buttons designate hot keys. For example, when the style palette is active (i.e., you have clicked into it) you can type "x" on your keyboard to skip to the next paragraph, or "d" to delete a paragraph.

Button	Description
With prev	Click "With prev" to merge the selected paragraph with the previous one (the carriage return between them is replaced with a space). Use this function to merge an unwanted heading into the paragraph following it, for instance, or if two paragraphs are separate but should be one
New pgraf	Click "New pgraf" to insert a return after the first sentence of the paragraph, creating two paragraphs from one. This feature is designed primarily to allow faster formatting of run-in heads. The new paragraph will be created after the first period, colon, question mark, hyphen, or en dash that is followed by a space, or an em dash (in this case, regardless of a following space). To format a two-sentence head, select "New pgraf," apply the correct style for the heading, select "New pgraf" again, and then select "With prev." If a paragraph does not have more than one sentence, selecting "New pgraf" will not do anything.
Previous	Click "Previous" to move the highlight to the previous paragraph.
Next	Click "Next" to advance to the next paragraph without changing the style of the selected paragraph.
Delete	Click "Delete" to remove the selected paragraph from the document and advance to the next paragraph.
Undo	Click "Undo" (as many times as necessary) to undo the last operations.

Warning

The "Undo" history is cleared when you click into the Word document or close the palette. The Undo button will be greyed out when the Undo history is cleared, indicating that you can not Undo the previous action from the palette.

Additional Actions

The behavior of the navigation buttons on the eXtyles style palette can be modified when used in combination with other keyboard items.

Button	Description
Shift + Next (x)	If you hold Shift while clicking "Next" (or, typing the hotkey "x"), eXtyles will skip all paragraphs tagged with the current paragraph's style, stopping at the next new paragraph style.
Shift + Table Body	If you hold Shift while clicking the Table Body style, eXtyles will apply the table body style to the entire table; that is, all of the content formatted within Word's table cells.
Tab	Within the style palette, you can use the Tab (and Shift + Tab) keys on the keyboard to switch between the different style tabs on the palette.
Esc	The Esc key will close the palette.

The Paragraph Styles dialog closes automatically after the document is completely styled. If you need to close the dialog in the middle of processing, click the X box in the upper-right corner or press Esc. You can reopen this dialog at any time, and styling will continue with the paragraph where the cursor is currently located

> ✅ **Tip**
> After you style a document, you can easily navigate through it by jumping from heading to heading using Word's Document Map feature. To use Word's Document Map feature, check the box in View > Navigation Pane.

Style Palette Tabs

It is important to note that both SIM and TM documents have style palettes that are different from the palette used for USGS publication types. This is because SIM and TM documents have text elements that are either unique to them (e.g., SIM) or are structurally much simpler than other publication types (e.g., TM).

This means that a document Activated as an OFR will have access to the Chap Tab, but a document Activated as a TM will not.

> ✅ **Tip**
> If you do not see the style tab you are looking for when you open the style palette, check to make sure that you have Activated the document as the correct publication type.

Title

The Title Tab of the eXtyles style palette includes paragraph styles that will be used to style content that will generally appear on the title page of the document.

Style Name	Description of Use
Figure Caption (Cover)	Use this to style the caption of a front matter cover image.
Cooperation Statement	Use this to style the secondary identification information on the title page. This is typically a cooperating organization, and the text will generally be something such as "Prepared in cooperation with Eureka County Nevada"
Program Note	Use this to style the name of a USGS organizational unit that produced the publication (e.g., National Water-Quality Assessment Project). It is different from the Cooperation Statement.
Document Title	Use this to style the title of the document or report (see also the following Suggested Citation Title and Running Head Title styles and their use)
Document Subtitle	Use this to style the document's or report's subtitle
Suggested Citation Title	Use this to style the title of the document that will be used to construct the suggested citation on the PDF. This version of the document title will be different from the Document Title because it will most likely follow sentence-style capitalization (unlike the primary Document Title)
Running Head	Use this to style the version of the document title that will make up the document's running head. This

Title	version of the title may be, for example, shorter than the primary Document Title
Report Authors*	Use this to style the name of the document or report authors. Note that these authors are not the same as book editors or compilers; typically their names are preceded by "By" (e.g., By Jane Smith)
Chapter Editors*	Use this style for the names of the **editors** of a document that is a chapter within a larger book publication.
Book Editors*	Use this to style the names of the editors of a document or report. Note that these editors are not the same as authors; typically their names are preceded by the text "Edited by" (e.g., Edited by Joe Anderson)
Compiler*	Use this to style the names of compilers of the document or report. Note that these compilers are not the same as editors or authors; typically their names are preceded by "Compiled by" (e.g., Compiled by Jane Smith and Joe Anderson)
Affiliations	Use this to style the affiliations text for the authors, editors, or compilers.
Section Title	Use this to style the title of the section that a chapter is in (this may appear infrequently).
Book Title	Use this to style the book title that the document belongs to; that is, not the title of the document itself (this may appear infrequently).
Author Footnote	Use this to style a note associated with the author/editor/compiler line.
Custom Disclaimer	Use this to style any **custom** note or disclaimer that needs to be included on the title page of the PDF; that is, a disclaimer or note that is different from and in addition to the boilerplate notes that are included with every publication (e.g., "Disclaimer: The findings and conclusions in this article are those of the author(s) and do not necessarily represent the views of the U.S. Fish and Wildlife Service.")
Associated Data	Use to style references to associated data that might be present on the title page.
Previous Version Date	Use to style the date in a version history bloc. See **Front Matter Structure** for examples.
Version Description	Use to style the description of the version history, most often follows the version date. See **Front Matter Structure** for examples.
Non-XML-Text /Graphics	Use this to style any content that should not be contained in the XML; for example, use this style for all paragraphs that contain graphics, such as the USGS logo.

*It is important to use the correct style for the author/editor/compiler. Each style represents a distinct role that the person played in authoring or contributing to the creation of the content of the report. So that the role is correctly captured in the XML, the correct paragraph style must be used. Do not style a report author as a Book Editor, and likewise do not style a book editor as a Report Author, and so on.

Front

The Front Tab of the eXtyles style palette includes paragraph styles that will be used to style front matter content that is not on the title page.

Style Name	Description of Use

TOC Object List Head	Use this to style the title of the front matter list of objects that will appear in the table of contents in the PDF **and that do not appear anywhere else in the document**; for example, **plates** or **maps** (e.g., "List of Plates") Do not use this to style a heading for a List of Tables or a List of Figures
TOC Object List Item	Use this to style the list of objects following the TOC Object List Head (e.g., "Map 1. Geologic map of the Hayfield quadrangle") Do not use this to style a list of tables or a list of figures, because those captions will appear elsewhere in the document (see also the TOC Table Title and TOC Figure Caption styles on the Obj Tab)
Foreword Title	Use this to style the title of the Foreword (if any)
Foreword	Use this to style the text of the foreword. Note: do not use Body Text to style the foreword.
Signature	Use this to style the Foreword Author line. This line must be placed at the end of the Foreword text but before the Foreword References (if any).
Preface Title	Use this to style the title of the Preface (if any)
Preface Text	Use this to style the text of the Preface. Note: Do not use Body Text to style the preface.
Acknowledgments Head (Front)	Use this to style the title of any Acknowledgments that appear in the Front Matter. Note: do not use this to style Acknowledgments that appear at the end of the document.
Acknowledgments	Use this to style the text of the Acknowledgments
Abstract Head	Use this to style the title of the Abstract
Abstract	Use this to style the text of the Abstract (either multiple paragraphs or a single paragraph is acceptable)
Definitions Title (Front)*	Use this to style the title of any section in the front matter that contains terms and definitions. These sections may include: • Abbreviations • Notation • Acronyms • Glossary • Variables
Definitions List Subhead*	Use this style for any subheadings that might occur within the definitions section.
Definitions Body Text*	Use this to style any discursive content within the terms and definitions list. For example, a headnote at the start of a Glossary ("Terms are defined relative to meanings within this publication.")
Definition List Item*	Use this to style the term and definition list items. For example: **ataxia**An inability to coordinate muscle activity during voluntary movement; may involve the limbs, head, or trunk.

	Terms should be formatted in one of the following ways: (1) bold or italic or (2) followed by punctuation such as a period, colon, or dash. This formatting is required so that eXtyles can correctly tag the term separate from the definition in the XML.
Front Matter Head	Use this to style the heading to *any other* front matter section *not covered by a specific paragraph style*. For example, use this style for the following sections: • Executive Summary • Conversion Factors • Datum • Divisions of Quaternary, Neogene, and Paleogene time used in this report
Front Matter Subhead	Use this to style subheadings within any section that starts with the Front Matter Head style.
Front Matter Text	Use this to style the text of any front matter section that starts with the Front Matter Head style.
Table Title**	Use this to style the content that immediately precedes a table in the front matter (most often unnumbered); that is, descriptive text that immediately precedes the table body (e.g., "Inch/Pound to International System of Units").
Quotation (Front)	Use this to style any block (or, display) quote that appears in the front matter, including epigraphs and quotes that may appear in the Foreword or Preface.
Quotation Source	Use this to style the source of a block (or, display) quote if that source appears on its own line (i.e., not run-in).
Front References Head	Use this to style the heading of a reference section that applies to the front matter content only; for example, the reference section within a Foreword or Preface.
Reference Headnote	Use this to style any introductory text paragraph that appears before the reference list.
Reference	Use this to style references that may appear in the front matter.
Footnote Text	Use this to style any footnotes that appear in the front matter
Non-XML-Text /Graphics	Use this to style any content that should not be contained in the XML; for example, use this style for all paragraphs that contain graphics, such as the USGS logo.

*Do not use these styles for Description of Map Units sections that appear in the front matter; instead, use the styles on the DMU tab.

**Do not use this style for headings such as "Datum" or "Conversion Factors" (which should be styled using the Front Matter Head).

Body

The Body Tab of the eXtyles style palette includes paragraph styles that will be used to style the general body content of USGS documents and reports.

> ⚠️ **Note**
> The style palette for certain document types (e.g., Techniques and Methods) is a subset of the full palette described here. This is done to simplify styling, because not all document types contain the same structures. For those documents, you may not see all of the buttons described here.

Style Name	Description of Use
Heading 1*	Use this to style level-one headings in the body of the document. Note that this style should be used in the main body of the document only; it should not be used to style level-one headings in the front matter or in the Appendix.
Heading 2*	Use this to style level-two headings in the body of the document. Note that this style should be used in the main body of the document only; it should not be used to style level-two headings in the front matter or in the Appendix.
Heading 3, 4, 5, 6, 7*	Use this to style level-three, -four, -five, -six, and -seven headings in the body of the document.
Body Text	Use this to style the body text of the document. Note that during Cleanup, eXtyles will autostyle what it can safely identify as Body Text. Often this is the majority of the document, and because of this, you should only have to apply this style to those few paragraphs of text that eXtyles was unable to autostyle.
Body Continued	Use this to style body text paragraphs that are a continuation of a previous body paragraph; for example, body text that is broken by a display equation, list, or block quote. Note that although this paragraph style is flush left (no indent), it should not be used to achieve a visual look in the document (e.g., do not use it to achieve a flush-left paragraph after a heading).
Quotation	Use this to style any block (or, display) quote that appears in the body.
Quotation Source	Use this to style the source of a block (or, display) quote if that source appears on its own line (i.e., not run-in).
Pull Quote	Use this to style any pull quote that appears in the body. This is not the same as Quotation; pull quotes are text fragments that are copied from the body text and are repeated as a display item in the typeset document.
Equation	Use this to style any display formula in the document; that is, formulas that appear on their own line(s), not those that are run-in with the body text. Use this for both numbered and unnumbered formulas.
Equation Where List	Use this to style the list of variables that may follow an equation. Any lead-in descriptive text (such as "where") should be styled as Body Text Continued; for example, $SL + y = z$ `<Equation>` where `<Body Text Continued>`

	SL is the Source Level `<Equation Where List>`
Preformatted Text	Use this to style content that requires the preservation of precise spacing and indentation; for example, computer code. Text that takes this style is also generally formatted with a monospace font (such as Courier New).
Numbered/Bullet List Level 1	Use this to style both numbered and bulleted lists. Bulleted and numbered lists should not use Word's auto-list function; that is, the bullets and numbers should appear in the document as plain text.
Unnumbered List	Use this for lists that are neither numbered nor bulleted.
Table Title	Use this to style the title of a table (either numbered or unnumbered).
TOC Table Title	Use this to style the title of the table as it will appear in the table of contents (because the TOC title may be slightly different than than the title in the body of the document)
Table Headnote	Use this to style a new paragraph that is a continuation of the table title; for example: [Information on ordering published maps can be obtained by calling the U.S. Geological Survey at 1–888–ASK–USGS (18882758747) or by visiting the USGS online] The Table Headnote paragraph should always be at the top of the table. Note that the eXtyles Cleanup process will not autostyle Table Headnote.
Figure Caption	Use this for captions to figures
TOC Figure Caption	Use this to style the caption of the figure as it will appear in the table of contents (because the TOC caption may be slightly different than than the caption in the body of the document)
Figure Alt Text	Use this to style the alternative caption for the figure, which screen readers will use in an online environment to comply with accessibility standards.
Box Layout Instruction**	This style should be used to indicate where a box should be placed in the document, when the content of the box is placed at the end of the document. For example, "Place Box 1 Here."
Footnote Text	Use this to style any footnotes that appear in the chapter
Non-XML-Text	Use this to style any content that should not be contained in the XML; for example, use this style for all paragraphs that contain graphics (e.g., figures) or for instructive text that is not part of the document body (e.g., instructions for layout).

*Note that in an XML workflow, it is important to style heading levels in a semantically correct way. For example, Heading 1 means that the heading introduces a primary section of the document. Heading 2 introduces a subordinate section of the document, and as such it must *always* be preceded by a Heading 1; that is, you can not start a document or a chapter with a Heading 2. Heading 3 introduces a further subordinate section, and as such it must always be preceded by a Heading 2, and so on.

**This content of paragraphs styled with Box Layout Instruction will not be retained in the XML. Because of this, only include layout instructions that are not intended to be retained in the final document in paragraphs to which this style has been applied.

Chap

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The Chap Tab (i.e., Chapter) of the eXtyles style palette includes paragraph styles that you will use to style content specific to chapters (also called Sections by USGS) within a single document.

⚠ The Chap Tab will not be present on the style palette for documents Activated as SIM or TM.

Style Name	Description of Use
Chapter Number*	Use this to style the number or letter of the Chapter/Section.
Chapter Title	Use this to style the title of the Chapter/Section.
Chapter Authors	Use this to style the authors of the Chapter/Section, if present.
Affiliations	Use this to style the affiliations (if provided) for the authors of the Chapter/Section.
Author Footnote	Use this to style a note associated with the Chapter/Section Author line.
Chapter Acknowledgments Head	Use this to style the title of an Acknowledgments section that pertains specifically to just the Chapter/Section, if present.
Acknowledgments	Use this to style the Chapter/Section Acknowledgments, if present.
Chapter References Head	Use this to style the title of a Reference section that pertains specifically to just the Chapter/Section content.
Reference Headnote	Use this to style any introductory text paragraph that appears before the reference list.
Reference	Use this to style the References for the Chapter/Section.
Bibliography	Use this to style bibliographic sources that should be *ignored during citation matching.* For example, lists of further readings or additional information. Bibliography items can appear at any point in the document (i.e., in a body section).
Chapter Appendix Title	Use this to style the title of an Appendix section that pertains to just the Chapter/Section.
Chapter Appendix Authors	Use this to style the authors of a chapter appendix, if present.
Appendix Heading 1	Use this to style the level-one heads within a Chapter Appendix. Do not use Heading 1 (Body tab) for level-one headings within a Chapter Appendix.
Appendix Heading 2	Use this to style the level-two heads within a Chapter Appendix. Do not use Heading 2 (Body tab) for level-two headings within a Chapter Appendix.
Appendix Heading 3	Use this to style the level-three heads within a Chapter Appendix. Do not use Heading 3 (Body tab) for level-three headings within a Chapter Appendix.

Appendix Body Text	Use this to style the body text of an appendix. Do not use regular Body Text for this content.
Body Continued	Use this to style body text paragraphs that are a continuation of a previous body paragraph; for example, body text that is broken by a display equation, list, or block quote. Note that although this paragraph style is flush left (no indent), it should not be used to achieve a visual look in the document (e.g., do not use it to achieve a flush-left paragraph after a heading).
Table Title	Use this to style the title of a table (either numbered or unnumbered).
Figure Caption	Use this for captions to figures. Note that,unlike Table Titles, eXtyles will not autostyle Figure Captions.
Appendix References Head	Use this to style the title of a Reference section that pertains just to the Chapter Appendix.

*Often, Chapter/Sections are lettered (e.g., Section A), and run-in with the Chapter/Section title. If the Number is run-in with the Title, it will need to be moved to it's own paragraph (you can use the New pgraf button on the style palette to achieve this). For example, this:

> *Section A: Overview of the U.S. Geological Survey Sagebrush Mineral-Resource Assessment (SaMiRA) Project*

Should be changed to:

> *Section A*
>
> *Overview of the U.S. Geological Survey Sagebrush Mineral-Resource Assessment (SaMiRA) Project*

Where "Section A" takes the Chapter Number style and the title takes the Chapter Title style.

Obj

The Obj Tab (i.e., Object) of the eXtyles style palette includes paragraph styles that will be used to style objects such as complex lists, boxes, tables, and figures that appear in USGS documents and reports.

Style Name	Description of Use
List Title	Use this to style titles of lists. Note that this is not the same as Heading 1, Heading 2, etc. (Body tab). The List Title style should only be used for those headings that pertain exclusively to a list that immediately follows the head.
Numbered/Bullet List Level 1	Use this to style both numbered and bulleted lists. Bulleted and numbered lists should not use Word's auto-list function; that is, the bullets and numbers should appear in the document as plain text.
Numbered/Bullet List Level 2	Use this to style both numbered and bulleted sublists; that is, those list items that are subordinate to a primary list item. Numbered/Bullet List Level 2 should only be used following Numbered/Bullet List Level 1. Bulleted and numbered lists should not use Word's auto-list function; that is, the bullets and numbers should appear in the document as plain text.
Numbered/Bullet List Level 3, 4, 5	

	Use these to style both numbered and bulleted sublists; that is, those list items that are subordinate to a previous list item. Numbered/Bullet List Level 3, 4, and 5 should only be used following a preceding Numbered/Bullet List Level. Bulleted and numbered lists should not use Word's auto-list function; that is, the bullets and numbers should appear in the document as plain text.
Continued List Item Level 1	Use this to style a continuation paragraph of a Numbered/Bullet List Level 1 item or an Unnumbered List Item. For example, if the Numbered/Bullet List Level 1 contains more than one paragraph or if the Numbered/Bullet List Level 1 is broken by a formula or other list item.
Continued List Item Level 2	Use this to style a continuation paragraph of a Numbered/Bullet List Level 2 item. Continued List Item Level 2 should only be used following Numbered/Bullet List Level 2. For example, if the Numbered/Bullet List Level 2 contains more than one paragraph or if the Numbered/Bullet List Level 2 is broken by a formula or other list item.
Continued List Item Level 3, 4, 5	Use these to style a continuation paragraph of a Numbered/Bullet List Level 3, 4, or 5 item. Continued List Item Level 3, 4, 5 should only be used following the appropriate Numbered/Bullet List Level 3, 4, 5. For example, if the Numbered/Bullet List Level 3, 4, 5 contains more than one paragraph or if the Numbered /Bullet List Level 3, 4, 5 is broken by a formula or other list item.
Unnumbered List	Use this for lists that are neither numbered nor bulleted.
Sidebar Title	Use this to style the title of Sidebar content.
Sidebar Text	Use this to style the text of Sidebar content.
Table Title*	Use this to style the title of a table (either numbered or unnumbered).
TOC Table Title	Use this to style the title of the table as it will appear in the table of contents (because the TOC title may be slightly different than than the title in the body of the document)
Table Headnote	Use this to style a new paragraph that is a continuation of the table title; for example: [Information on ordering published maps can be obtained by calling the U.S. Geological Survey at 1–888–ASK–USGS (18882758747) or by visiting the USGS online] The Table Headnote paragraph should always be at the top of the table. Note that the eXtyles Cleanup process will not autostyle Table Headnote.
Table Heading*	Use this to style the column header rows of the table. Do not use this style for internal table header rows; for those, simply use table body and bold or italic formatting, as necessary.
Table Spanner	Use this to style internal headings in the table. These headings may span multiple rows.
Table Body*	Use this to style the body of the table, regardless of the content (e.g., text, numerals, dashes).
Table Footnote**	Use this to style table footnote text; that is, notes that pertain to the table content and that are placed at the bottom of the table. Table footnotes frequently have numbers or symbols associated with them that refer to a matching number or symbol in the table body.
Table Title Repeating/Facing	Use to style the title of a facing-page table; that is, a table that will be split into two parts to facilitate proper layout of a broadside table that will span a spread.

Table Group Begin	Use to style a paragraph that indicates the start of a facing-page table group. ⚠ This added paragraph must contain text; e.g., [[Begin Table 5 Group]]
Table Group End	Use to style a paragraph that indicates the end of a facing-page table group. ⚠ This added paragraph must contain text; e.g., [[End Table 5 Group]]
Figure Caption	Use this for captions to figures. Note that, unlike Table Titles, eXtyles will not autostyle Figure Captions.
Figure Caption Additional Paragraph	Use this for a second or third paragraph of the figure caption.
TOC Figure Caption	Use this to style the caption of the figure as it will appear in the table of contents (because the TOC caption may be slightly different than than the caption in the body of the document)
Figure Alt Text	Use this to style the alternative caption for the figure, which screen readers will use in an online environment to comply with accessibility standards.
Photo Credit	Use this to style the credit line for a photo.

*Note that during Cleanup, eXtyles will autostyle table content that it can safely identify as Table Title, Table Header, Table Body, and sometimes Table Footnote. Because of this, you will only have to apply table styles to the few items that eXtyles did not autostyle.

**Note that if the table footnote is within a Word-formatted table cell, eXtyles will autostyle the content during Cleanup. However, if the table footnote text is outside of a Word table cell, eXtyles will not autostyle the content. Because of this, you will want to carefully proof the style of table footnotes for accuracy.

DMU

The DMU Tab of the eXtyles style palette includes paragraph styles that will be used to style the Description of Map Units sections that may appear in SIM, OFR, and PP documents.

> ⚠ **Note**
> It is important that list items within a DMU section are properly styled to reflect the correct hierarchy of the list. For example, always start a DMU section or subsection with DMU Unit 1; items subordinate to that should be styled as DMU Unit 2, and so on.

Style Name	Description of Use
DMU Head 1 (Front)	Use this to style the title of the DMU section if it appears in the front matter of the document.
DMU Head 1 (Back)	Use this to style the title of the DMU section if it appears in the back of the document.

Style Name	Description of Use
DMU Authors	Use this to style the author line of a DMU section (rarely appears).
DMU Head 2	Use this to style a level-one heading within a DMU section.
DMU Head 3	Use this to style a level-two heading within a DMU section.
DMU Head 4	Use this to style a level-three heading within a DMU section.
DMU Head 5	Use this to style a level-four heading within a DMU section.
DMU Body Text	Use this to style any text paragraphs within a DMU section that are not part of the term or definition; for example, introductory headnotes.
DMU Unit 1	Use this to style a level-one list item within a DMU section.
DMU Unit 2	Use this to style a level-two list item within a DMU section.
DMU Unit 3	Use this to style a level-three list item within a DMU section.
DMU Unit 4	Use this to style a level-four list item within a DMU section.
DMU Unit 5	Use this to style a level-five list item within a DMU section.
DMU Continued Paragraph	Use this to style a paragraph that is a continuation of a list item, regardless of the level of the list item.

Back

The Back Tab of the eXtyles style palette includes paragraph styles that will be used to style non-Appendix back matter elements, such as Acknowledgments and References, that appear in USGS documents and reports.

Style Name	Description of Use
Acknowledgments Head (Back)	Use this to style the title of any Acknowledgments that appear in the Back Matter (i.e., the end of the document). Note: do not use this to style Acknowledgments that appear in the front matter.
Acknowledgments	Use this to style the text of the Acknowledgments
Reference Head (Back)	Use this to style the heading of a reference section that applies to the entire document; that is, the reference section in the back that pertains to all of the content.
Reference Headnote	Use this to style text paragraphs that introduce the reference list. For example, [Entries marked with an asterisk (*) at the beginning of the reference indicate a reference for data included in the geodatabase] This style should *not* be used to style a reference entry.
Reference*	Use this to style references.
Bibliography	Use this to style bibliographic sources that should be *ignored during citation matching.* For example, lists of

	further readings or additional information.
Definitions Title (Back)	Use this to style the title of any section in the back matter that contains terms and definitions. These sections may include: • Abbreviations • Notation • Acronyms • Glossary • Variables • Description of Map Units Note that this style must be used if these lists are to remain at the end of the document. Do not use Definitions Title (Front) for this content.
Definitions List Subhead 1	Use this to style the first-level subhead that may appear within a definitions list (most commonly in a Description of Map Units section).
Definitions Body Text	Use this to style any discursive content within the terms and definitions list. For example, a headnote at the start of a Glossary ("Terms are defined relative to meanings within this publication.")
Definitions List Item	Use this to style the term and definition list items. For example: **ataxia**An inability to coordinate muscle activity during voluntary movement; may involve the limbs, head, or trunk. Terms should be formatted in one of the following ways: (1) bold or italic or (2) followed by punctuation such as a period, colon, or dash. This formatting is required so that eXtyles can correctly tag the term separate from the definition in the XML.
Back Matter Head	Use this to style the heading to *any other* back matter section *not covered by a specific paragraph style*.
Back Matter Subhead	Use this to style subheadings within any section that starts with the Back Matter Head style.
Back Matter Text	Use this to style the text of any back matter section that starts with the Back Matter Head style.
Box start tag (must contain text)	Use this to indicate the start of a complex box or sidebar. This paragraph must contain text; for example, "Start Feature Box 1". The style must be used at the start of a box to ensure that the box content is properly formatted in the XML.
Sidebar Title	Use this to style the title of a box or sidebar.
Sidebar Head 1	Use this to style the first-level head within a Sidebar.
Sidebar Head 2	Use this to style the second-level head within a Sidebar.
Sidebar Head 3	Use this to style the third-level head within a Sidebar.
Sidebar Head 4	Use this to style the fourth-level head within a Sidebar.
Sidebar Text	Use this to style the text of sidebar or box content.

Box end tag (must contain text)	Use this to indicate the end of a complex box or sidebar. This paragraph must contain text; for example, "End Feature Box 1". The style must be used at the end of a box to ensure that the box content is properly formatted in the XML.
Notes Head	Use this to style the heading of a note, such as Contact Information for authors
Notes Paragraph	Use this to style the content of a note.
Colophon Title	Used to style the title of a colophon section, if present
Colophon Paragraph	Use this to style the colophon content.
Colophon Paragraph Indent	Use this to style colophon content that must be indented from the rest of the colophon text during layout; content styled in this way will have an indent attribute in the XML.
Colophon Section	Used to style the text that starts a new section of colophon information; for example, "For more information concerning the research in this report, contact:"
Footnote Text	Use this to style any footnotes that appear in the back matter.
Non-XML-Text /Graphics	Use this to style any content that should not be contained in the XML; for example, use this style for all paragraphs that contain graphics (e.g., figures) or for instructive text that is not part of the document body (e.g., instructions for layout).

*Note that during Cleanup, eXtyles will autostyle content that it can safely identify as references. Because of this, you will only have to apply the reference style in the rare instances that eXtyles did not autostyle them, and when new reference content is added to the document after eXtyles cleanup.

App

The App Tab (i.e., Appendix) of the eXtyles style palette includes paragraph styles that will be used to style Appendix elements that appear at the back of the document.

Style Name	Description of Use
Appendix Title	Use this to style the title of an Appendix.
Appendix Authors	Use this to style the authors of the appendix. Do not use Report Authors (Front2) or Chapter Authors (Body).
Appendix Heading 1*	Use this to style the level-one heads within an Appendix. Do not use Heading 1 (Body tab) for level-one headings within an Appendix.
Appendix Heading 2*	Use this to style the level-two heads within an Appendix. Do not use Heading 2 (Body tab) for level-two headings within an Appendix.
Appendix Heading 3, 4, 5*	Use this to style the level-three, -four, and -five heads within an Appendix. Do not use Heading 3, 4, or 5 (Body tab) for level-three, -four, or -five headings within an Appendix.

Appendix Body Text	Use this to style the body text of the Appendix. Do not use Body Text (Body tab) for appendix content. Note that eXtyles will not autostyle Appendix Body Text during document Cleanup. In fact, the Appendix body text will likely be styled, incorrectly, as Body Text, and the correct Appendix Body Text style will need to be applied.
Body Continued	Use this to style appendix body text paragraphs that are a continuation of a previous appendix body paragraph; for example, appendix body text that is broken by a display equation, list, or block quote. Note that although this paragraph style is flush left (no indent), it should not be used to achieve a visual look in the document (e.g., do not use it to achieve a flush-left paragraph after a heading).
Numbered/Bullet List Level 1	Use this to style both numbered and bulleted lists. Bulleted and numbered lists should not use Word's auto-list function; that is, the bullets and numbers should appear in the document as plain text.
Unnumbered List	Use this for lists that are neither numbered nor bulleted.
Equation	Use this to style any display formula in the document; that is, formulas that appear on their own line(s), not those that are run-in with the body text. Use this for both numbered and unnumbered formulas.
Equation Where List	Use this to style the list of variables that may follow an equation; for example, $SL + y = z$ where SL is the Source Level
Preformatted Text	Use this to style content that requires the preservation of precise spacing and indentation; for example, computer code. Text that takes this style is also generally formatted with a monospace font (such as Courier New).
Quotation	Use this to style any block (or, display) quote that appears in the body.
Table Title	Use this to style the title of a table (either numbered or unnumbered).
Figure Caption	Use this for captions to figures.
Appendix Reference Head	Use this to style the heading of a reference section that applies to the Appendix; that is, the reference section at the end of the Appendix that applies to just the Appendix.
Reference Headnote	Use this to style text paragraphs that introduce the reference list. For example, [Entries marked with an asterisk (*) at the beginning of the reference indicate a reference for data included in the geodatabase] This style should *not* be used to style a reference entry.
Reference	Use this to style references.
Bibliography	Use this to style bibliographic sources that should be *ignored during citation matching*. For example, lists of further readings or additional information.
Appendix Acknowledgments Head	Use this to style the title of an Acknowledgments section that pertains only to the Appendix.

Acknowledgments	Use this to style the text of the Acknowledgments.
Footnote Text	Use this to style any footnotes that appear in the back matter.
Non-XML-Text /Graphics	Use this to style any content that should not be contained in the XML; for example, use this style for all paragraphs that contain graphics (e.g., figures) or for instructive text that is not part of the document body (e.g., instructions for layout).

*Note that in an XML workflow, it is important to style heading levels in a semantically correct way. For example, Appendix Heading 1 means that the heading introduces a primary section of the Appendix. Appendix Heading 2 introduces a subordinate section of the Appendix, and as such it must *always* be preceded by an Appendix Heading 1; that is, you can not start a Appendix with an Appendix Heading 2. Appendix Heading 3 introduces a further subordinate section, and as such it must always be preceded by an Appendix Heading 2, and so on.

Front Matter Structure

What to Include and Not Include in the Front Matter

A large amount of the front matter content that appears in typeset USGS documents is static, or boilerplate, text. Further, several components of the front matter are duplicated in the final PDF; for example, the document title and authors appear more than once on different pages in the front matter. eXtyles can automatically generate much of the front matter boilerplate content, and in an XML workflow it is best practice to avoid having duplicate content (that is, the same thing in more than one place) in the XML. Because of this, when using eXtyles the front matter in USGS Word documents is greatly simplified.

Include

Title Page

The following example shows how the title page of a typical USGS document is organized in eXtyles. Note that only the following elements are retained:

- USGS logo (not required, but can be retained if desired)
- Document title for the Suggested Citation (note the sentence-style capitalization)
- Document title for the Running Head (note the shortened length)
- Cooperator statement, if provided
- Program note information, if provided
- Document title
- Document authors
- Author affiliations, if provided

> ⚠ **A note about the Suggested Citation and Running Head**
> Despite the XML best practice to avoid duplicate content, to ensure the accurate automated layout of content in InDesign using Typefi, some content must be provided in more than one place; specifically, the document title, the suggested citation, and the running head.
>
> These three versions of the document title are, in fact, slightly different from one another: the suggested citation follows different capitalization rules and the running head is often a shorter version of the title. Because of this, the document title will need to appear in more than one place on the title page, as shown in the example.

Other Front Matter

If present, the following front matter elements are also retained:

- List of Plates, Maps (or other objects that do not appear in the Word document)
- Version history dates and descriptions
- Associated Data
- Foreword
- Preface
- Acknowledgments
- Conversion Factors
- Datum Statements
- Abbreviations

See **USGS Styles** for more information about how to style these front matter sections.

> ⚠ **A note about the List of Plates, Maps, and so on**
>
> Occasionally the table of contents for a USGS publication will include a list of objects that do not also appear in the Word document (e.g., maps, plates, etc.). This is distinct from TOC lists of figures and tables, the captions and titles of which are also included in the Word document. Therefore, to ensure that these lists of objects are included in the PDF, they must be included in the front matter of the document.

Typical Front Matter Elements

Associated Data Example
RptTitle	**System·Characterization·Report·on·the·German· Aerospace·Center·(DLR)·Earth·Sensing·Imaging· Spectrometer·(DESIS)¶**
CitationTitle	System·characterization·report·on·the·German·Aerospace·Center·(DLR)·Earth·Sensing· Imaging·Spectrometer·(DESIS)¶
AssociatedData	Krempa,·H.M.,·2020,·Periphyton·community·data·within·the·Lower·Grand·River·hydrologic· unit·code·10280103,·Missouri·and·Iowa,·2011–2018:·U.S.·Geological·Survey·data·release,· https://doi.org/10.5066/P9BYF1EN.¶
AssociatedData	U.S.·Geological·Survey,·2020,·USGS·water·data·for·the·Nation:·U.S.·Geological·Survey· National·Water·Information·System·database,·https://doi.org/10.5066/F7P55KJN.¶
RunningHeadTitle	System·Characterization·Report·on·the·German·Aerospace·Center·(DLR)·Earth·Sensing· Imaging·Spectrometer·(DESIS)¶
RptAuthors	By·Mahesh·Shrestha,[1]·Aparajithan·Sampath,[1]·Shankar·N.·Ramaseri·Chandra,[1]·Jon·B.·Christopherson,[1]· Jerad·Shaw,[1]·and·Cody·Anderson[2]¶

Do Not Include

Boilerplate Content

Boilerplate content–that is, content that remains static across documents, such as information about the Secretary of the Interior and the USGS Director–will be added to the XML during export. Because of this, boilerplate content should be removed from the Word document.

In USGS documents, boilerplate content includes:

- U.S. Department of the Interior Secretary and USGS Director information
- USGS address
- USGS "for more information" content
- USGS copyright statement
- ISBNs and/or ISSNs

Table of Contents / List of Figures and Tables

The document's table of contents is best generated from the XML during layout. Because of this, remove entirely the tables of contents and lists of figures and tables from the Word documents (see, however, the previous note about Lists of Plates, Maps, and so on).

Description of Map Units

The Description of Map Units (DMU) sections that appear in some USGS documents are often more complex than standard abbreviations lists or glossaries; for example, they often contain subheadings and citations. To support this complexity, DMU sections have a unique set of paragraph styles that must be carefully applied to produce valid and correct XML.

Although DMU sections can appear at either the start or end of the document, DMU-specific styles are located on the DMU Tab of the eXtyles style pallet. A DMU section, when properly styled, will look similar to the image to the right (though possibly not all elements, such as the author line, will be included).

Paragraph Styling

DMU Head 1 (Back) / DMU Head 1 (Front)

The DMU Head 1 (Front or Back) style should be used to style the Description of Map Units title, depending on where the section falls in the document (either at the front or the back of the document).

DMU Authors

The DMU Authors paragraph style should be used to style the author line, if present, for a DMU section. Although infrequent, authors for a DMU section must be styled using this paragraph style; do not use Chapter Author.

DMU Body Text

The DMU Body Text style can be used to style any discursive text (headnote) that may appear at the start of the DMU section. This will be text that is likely introductory or explanatory in content, and is not a DMU List Item.

DMU Headings (2, 3, 4)

If the DMU section contains subheadings (as in the example), use these styles regardless of whether the DMU section is at the start or end of the document.

DMU Units (1, 2, 3, 4, 5)

The text of the DMU items should be styled with the DMU Unit paragraph styles. Do not use the regular Definition List Item paragraph style for this section, else citation matching will pass over the content.

Further, to accurately capture the hierarchy of the items it is important that the proper unit level be used. For example, a

---

DMUHead1Back — **Description·of·Map·Units**¶

DMUAuthors — [By J.S. Author and J.D. Scientist]¶

DMUHead2 — SURFICIAL·DEPOSITS·AND·BASALT¶

DMU1 — mt → **Mine·tailings**¶

DMU1 — QTa → **Old·alluvium·and·fanglomerate·(Quaternary·and·Tertiary)**—Unit·ranges·from·deeply·dissected·deposits·as·old·as·middle·Miocene·in·age·(Stone·and·others, 2004)·to·less·dissected·deposits·forming·well-developed·desert·pavements·that·could·be·as·young·as·middle·or·late·Pleistocene, based·on·criteria·discussed·by·Bull·(1991)·and·Jayko·(2010). ·Includes·the·following·subunit:¶

DMU2 — QTas → **Silt·beds·(Quaternary·or·Tertiary)**—Weakly·consolidated·beds·of·grayish-white·silt·that·interfinger·with·dissected·deposits·of·alluvial·gravel·(unit·QTa). ¶

DMUHead2 — INTRUSIVE·ROCKS·AND·VEINS¶

DMU1 — q → **Quartz·veins·(Cenozoic·or·Mesozoic)**—Veins·cutting·Mississippian·rocks·near·Cerro·Gordo·Mine. ·Unit·includes·Castle·Rock·vein·of·Merriam·(1963)¶

DMU1 — KJg → **Leucocratic·granite·(Cretaceous·or·Jura**ssic)—Light-colored, medium-grained·biotite·

DMU Unit 2 should never be the first item in a DMU section, because unit 2 items will always be subordinate to unit 1 items.

Use this to style a paragraph that is a continuation of a list item; that is, a list item that is more than one paragraph would use the proper DMU List Item style for the first paragraph, and DMU Continued Paragraph for all subsequent paragraphs that are part of the list item.

DMU Format

Term and Definition

During XML export, eXtyles will tag the term and definition of a DMU Unit. For example, the following unit will produce the subsequent XML:

Qal **Unconsolidated sedimentary deposits**—*Include alluvium, beach- and bay-filling deposits, gravel, and sand*

```
<def-item>
<term><styled-content style-type="normal"><private-char description="FGDCGeoAge" name="
Quaternary"/></styled-content><styled-content style-type="normal"><private-char
description="FGDCGeoAge" name="a"/></styled-content><styled-content style-type="normal"
><private-char description="FGDCGeoAge" name="l"/></styled-content></term>
<def><p><bold>Unconsolidated sedimentary deposits</bold>&#x2014;Include alluvium, beach-
and bay-filling deposits, gravel, and sand</p></def>
</def-item>
```

You can see that the term, Qal, is tagged in the XML as <term> > and the description of the term is correctly tagged as <def>. However, this is only achieved if a tab is used between the term and definition in the Word document.

> ✅ **Tip**
> To ensure that the XML correctly captures the term and definition of a DMU Unit, tabs must be used after the term in the Word document.

FGDCGeoAge Font Mapping

When the FGDCGeoAge font is applied to text, the font attribute will be captured in the XML so that the text can be rendered correctly in the PDF. In the previous example, the term Qal, which in the Word document has the FGDCGeoAge font applied, will export as styled content in the XML:

```
<private-char description="FGDCGeoAge" name="Quaternary"/></styled-content><styled-
content style-type="normal"><private-char description="FGDCGeoAge" name="a"/></styled-
content><styled-content style-type="normal"><private-char description="FGDCGeoAge" name="
l"/></styled-content>
```

⚠️

> ⚠️ **Note**
>
> This font mapping behavior applies to anywhere the FGDCGeoAge is used in the Word document, not just the DMU sections.

Map Labels

Occasionally map label or other identifiers will appear at the end of a term in a DMU section. These identifiers may need to be set in a different front from the rest of the DMU text. The use of the eXtyles Map Label character style will facilitate this design requirement.

For example, in the following unit, the text "FID 783" will need to be set in Arial font in the PDF. In the Word document it has had the Map Label character style applied.

DMU1   a0a1, ·p0a1, ·s0a1´→**A.D.·1984·flow**—Aphanitic·'a'ā, ·with·<1%·olivine·phenocrysts·1-2·mm·in·size.·Vents· were·distributed·along·15-km·segment·of·NERZ·between·9,350-·and·12,400-ft·elev.· Most·fissures·are·west·of·map·area·at·higher·elevations. FID·783¶

The Map Label character style must be manually applied to the content; that is, there is no eXtyles Advanced Process that will automatically style this content. When the style is used, when the document is exported to XML the following is achieved, where the label is tagged as <named-content>:

```
<def-item>
<term>a0a1, p0a1, s0a1´</term><def><p><bold>A.D. 1984 flow</bold>&#x2014;Aphanitic 'a',
with <1% olivine phenocrysts 1-2 mm in size. Vents were distributed along 15-km segment
of NERZ between 9,350- and 12,400-ft elev. Most fissures are west of map area at higher
elevations. <named-content content-type="map-label">FID 783</named-content></p></def>
</def-item>
```

The Map Label character style can be used anywhere in the text (not just the DMU section).

DMU and Citation Matching

eXtyles Citation Matching will run on a properly styled DMU section (see the image to the right).

> ❌ In an eXtyles workflow, tagged (i.e., styled with the turquoise eXtyles cite_bib character style) citations are not supported in a **term** of the definition paragraph. That is, in the example to the right, a tagged citation would not be allowed with the DMU term QTstm.

QTstm· → **Middle·member·(Pliocene)**—Forms middle part of·San·Timoteo·formation of·Frick· (1921).·Unit consists of·four principal·lithotypes that recur·throughout sequence:·(1)·thick·sheetlike· layers·of·conglomeratic·rock;·(2)·light-gray·to·white·sandstone·and·slightly·conglomeratic·sandstone;·(3)· reddish·mudstone·and·sandstone;·and·(4)·locally significant but·minor·grayish-green·mudrock.· Lithologies·(1)·and·(3)·distinguish·middle·member·from·other·members·of·formation.·Lower·contact·is· transitional across·intervals·as·thick·as·50·m, ·and·appears·to·interfinger·southeastward·and·eastward·with·

Figure Captions and Table Titles

Figure Captions

eXtyles includes four distinct paragraph styles for figure captions: Figure Caption, Figure Caption Additional Paragraph, TOC Figure Caption, and Figure Alt Text.

> ⚠️ **Note**
>
> eXtyles does not require that all of these versions of the caption be used for every image in the document: only Figure Caption is required. Whether the other caption styles are used is at the discretion of the USGS; however, note that because the automated InDesign layout software (Typefi) will use the TOC Figure caption to generate the list of figures in the front matter, it may be advisable to include that in the document.

- **Figure Caption** is used to style the full caption of the image as it will appear next to the image in the body of the document.
- **Figure Caption Additional Paragraph** is used to style subsequent paragraphs of a caption, if there are more than one. Do not use Figure Caption to style additional paragraphs of the figure caption.
- **TOC Figure Caption** is the version of the caption that will be used to generate the list of figures in the front matter in the PDF. This caption is often (but does not have to be) different from the primary caption. This paragraph style, when used, will export to <p content-type="toc"> in the <caption> for the figure in the XML (see the following sample).
- **Figure Alt Text** is the version of the caption that is written to achieve accessibility standards. For example, this version of the caption is what will be read by screen readers, and so on. This paragraph style, when used, will export to <long-desc> in the <caption> for the figure in the XML (see the following sample).

> ❌ Local formatting such as bold and italic can not be used in an accessibility caption for a figure. To avoid parsing errors, be sure to proof carefully captions that are styled as Figure Alt Text and remove any local formatting before XML export.

The following example shows how these styles should be used (see **Figures, Tables, and Sidebars** for more information about what the XML these styles will produce).

> ⚠️ Note that the order in which these versions of the captions are placed is important for XML export. If all variations are used, the order shown in the above image must be used.

Table Titles

eXtyles includes two distinct styles for table titles: **Table Title** and **TOC Table Title**. As with figure captions, titles styled as TOC Table Title will be used to generate a list of tables in the front matter in the PDF.

The following example shows how these styles should be used (see **Figures, Tables, and Sidebars** for more information about the XML these styles will produce).

Chapter and Section Styles

Documents that are organized into chapters (or, sections) will make use of the eXtyles chapter-specific paragraph styles. These chapter styles are located on the **Chap tab** of the eXtyles style palette.

Chapters/sections may have the following elements that pertain to the specific chapter/section and not to the document as a whole:

- authors/affiliations
- references
- appendices
- acknowledgments

Be sure to use the chapter-specific paragraph styles for these items to ensure that content is handled correctly during both eXtyles Advanced Processes and XML export.

> ⚠ **Note**
>
> The Document Title and Report Authors (and Chapter Editors, etc.) paragraph styles are used for the document's main title and authors, as presented on the title page. These styles appear on the **Front tab** of the eXtyles style palette.

Special Treatment for Subsections

Occasionally, document chapters/sections will include **subsections** with separate author bylines. For those subsections, the Body Text paragraph style should be used for the subsection author names, not the Chapter Author style.

Likewise, in chapter/section subsections, regular heading and Body Text paragraph styles should be used for Acknowledgments, Abstracts, and so on.

> ⚠ **Note**
>
> Be sure to include the subsection authors on the title page (styled as Chapter Editors) so that the author metadata are captured in the XML.

ChapterTitle	**Section·B.·Mineral-Resource·Information**
ChapAuthors	By·Gregory·L.·Fernette,·Peter·N.·Schweitzer,·and·Elizabeth·J.·Sangine¶
BodyText	This·discussion·on·mineral-resource·information·used·in·th sections.·The·first·section·describes·the·U.S.·Geological·Survey·(U (USMIN)·data·compilation·developed·for·the·Bureau·of·Land·Mar describes·the·USGS·Mineral·Resources·Data·System·(MRDS).·Th contributed·by·the·USGS·National·Minerals·Information·Center·(N
Head1	**USMIN·Project·Mineral-Resource·Data·for·the·USG**
BodyText	By·Gregory·L.·Fernette¶
Head2	**Introduction¶**
BodyText	Mineral-occurrence,·mining,·and·mineral-exploration·infor developing·mineral-resource·assessments·for·the·Bureau·of·Land·l

Auto-Redact

Overview

The eXtyles Auto-Redact function automates common, time-consuming Word edits so that editors and copy editors don't have to spend time making repetitive or minor edits. The Auto-Redact function automatically performs a complex set of text substitutions in a document to bring it into compliance with some of the predefined publication styles and standards of USGS.

Auto-Redact substitutions are based on user-defined rules. Your custom eXtyles configuration is based on detailed customer-specific information gathered from USGS and implemented by the eXtyles configuration team. Rules related in some way to each other (e.g., rules dealing with abbreviations of units of measure or rules that convert British spelling into American spelling) are assembled into eXtyles "dictionaries." There are three categories of dictionaries:

- **General dictionaries**, which apply to all documents processed by eXtyles
- **Publisher-specific dictionaries**, which apply to all documents of a specific publisher
- **Publication-specific dictionaries**, which apply to all documents of a single publication within a publisher group (e.g., to a single journal within a publisher family)

eXtyles automatically loads the correct dictionaries based on the document information you have supplied during the activation and normalization process.

Using Auto-Redact

There are two stages of Auto-Redact available on the eXtyles ribbon: Auto-Redact and Late-Stage Auto-Redact. Auto-Redact should be run immediately after paragraph styling. The process will apply a set of rules that make editorial changes to the content of the document. Late-Stage Auto-Redact should be run **after** eXtyles Advanced Processes (e.g., Bibliographic Reference Processing, Citation Matching, etc.) and **before** XML Export. These rules will provide additional cleanup and perform some simple checks that will ensure that your document is ready for XML Export.

Auto-Redact

Perform the following steps to apply the Auto-Redact rules to a document:

1. Select Auto-Redact from the eXtyles ribbon

The following dialogue will appear:

Auto-Redact Dictionaries   ✕

Active	Class Name	Edit
YES	Universal Pre-Edit Rules	Edit
YES	Convert Single Quotes to Double Quotes	Edit
YES	Change Dumb Quotes to Smart Quotes	Edit
YES	USGS Quote Placement	Edit
YES	USGS Paragraph Protection Rules	Edit
YES	Add Inera tags to protect http addresses	Edit
YES	Add Inera tags to protect quoted material	Edit
YES	USGS Typographic Cleanup	Edit
YES	USGS Head Punctuation Cleanup	Edit
YES	USGS Head Text Cleanup	Edit
YES	USGS Style Warnings	Edit
YES	USGS General Number Cleanup	Edit
YES	USGS "Between/and" and "from/to" Cleanup	Edit
YES	USGS Two-fold and 2-fold Conversion	Edit
YES	USGS Word Hyphenation and Spacing	Edit
YES	USGS Standardize Equation Citations	Edit
YES	USGS Standardize Figure Citations	Edit
YES	USGS Standardize Table Citations	Edit
YES	USGS Standardize Figure Captions/Legends	Edit
YES	USGS Standardize Table Captions/Legends	Edit
YES	USGS (Italics) Genus and Species	Edit
YES	USGS (Italics) Italicized Terms	Edit
YES	USGS (Italics) Latin and Other Foreign Terms	Edit
YES	USGS Terms and Abbreviations	Edit
YES	Remove Inera tags to protect quoted material	Edit

Cancel	OK

❌ **Warning**

Note that by clicking the "Yes/No" toggle in the Active column in this dialogue, you can disable Auto-Redact dictionaries from running on a given document. However, **Inera strongly advises against this**. If you find that you frequently would like to turn off any given dictionary, please contact extyles-support@inera.com.

Likewise, you can access the content of the Auto-Redact dictionaries by clicking "Edit" in the Edit column of the dialogue. **Inera strongly advises against this**. If you have an itch to edit any of the Auto-Redact rules that run on your content, contact extyles-support@inera.com and inquire about the eXtyles Administrator Training courses we offer (in which we teach you how to scratch that Auto-Redact itch).

2. Click OK to process the document

The changes eXtyles makes to your content during this Auto-Redact stage are not tracked (e.g., by Word's Track Changes function). But, fear not. You can still easily view any changes that were made to your content using eXtyles's Compare to Baseline function.

> ⚠ Remember, Auto-Redact is a safe and efficient way to quickly make routine editorial changes to your content; it is a thoughtful set of rules that are, among other things, context-specific. For example, Auto-Redact will avoid making changes to quoted material and references.

3. Click "Compare to Baseline"

Whenever you run Auto-Redact, eXtyles will automatically make a backup copy of your manuscript. Having a backup copy allows you to use **Compare to Baseline** immediately after Auto-Redact to review the changes that are made by eXtyles. Inera recommends that the first several times you use Auto-Redact you do a Compare to Baseline check of the changes. After performing this check several times, you may feel confident enough in Auto-Redact that you omit the Compare to Baseline check from your workflow. However, you may also find that you prefer to continue this check, as it is a quick and easy way to proof Auto-Redact changes.

> ❌ **Warning**
> Do not edit the baseline comparison file (or the baseline file itself). The baseline comparison file is just for you to use for comparison purposes. Always make your changes in the working Word document. If the document title reads Compare Result 1 and there are changes tracked in the document, you're looking at a comparison document. If you want to adjust or reject one of the Auto-Redact changes, close or minimize the comparison document and make your edits in the working Word document.

> ⚠ If you find that during editing you are making the same changes over and over (either manually or via Word's find-and-replace function), let us know! There's a good chance we can write an Auto-Redact rule (or two) to automatically make those changes for you.

Late-Stage Auto-Redact

Late-Stage Auto-Redact can perform more focused editorial cleanup by leveraging the styling that has been applied to the document via eXtyles Advanced Processes. For example, Late-Stage Auto-Redact can change hyphens to en-dashes specifically in volume numbers in references. It can also warn when a specific piece of content might not be styled correctly; for example, if the References heading has been styled as a Head 1 rather than a References Head.

Perform the following steps to apply Late-Stage Auto-Redact to a document.

1. Select Late-Stage Auto-Redact from the eXtyles ribbon

The following dialog will appear (note that there are fewer dictionaries than in the Auto-Redact menu; this is as expected):

Auto-Redact Dictionaries

Active	Class Name	Edit
YES	USGS Paragraph Protection Rules	Edit
YES	Add Inera tags to protect http addresses	Edit
YES	Add Inera tags to protect quoted material	Edit
YES	USGS Reference Cleanup	Edit
YES	USGS Style Warnings	Edit
YES	Remove Inera tags to protect quoted material	Edit

Cancel   OK

2. Click OK to process the document

As with Auto-Redact, the changes eXtyles makes to your content during Late-Stage Auto-Redact are not tracked (e.g., by Word's Track Changes function). Again, you can still easily view any changes that were made to your content using eXtyles's **Compare to Baseline** function.

3. Click Compare to Baseline and/or Review New Word Comments, if Any

As with Auto-Redact, you can use Compare to Baseline to review any changes made to the text by Late-Stage Auto-Redact. Additionally, Late-Stage Auto-Redact will warn, in the form of a Word comment, when specific text may be incorrectly styled. In the following example, the References head has been styled as Head 1 (rather than References Head).

References¶

> **MainServer**
> This paragraph appears to be incorrectly styled. Please apply a Reference Head style and change text to "References Cited".¶

Review the comments and make any style changes that might be necessary.

> ✓ It is important to review and address all comments that are added to the document by eXtyles processes.
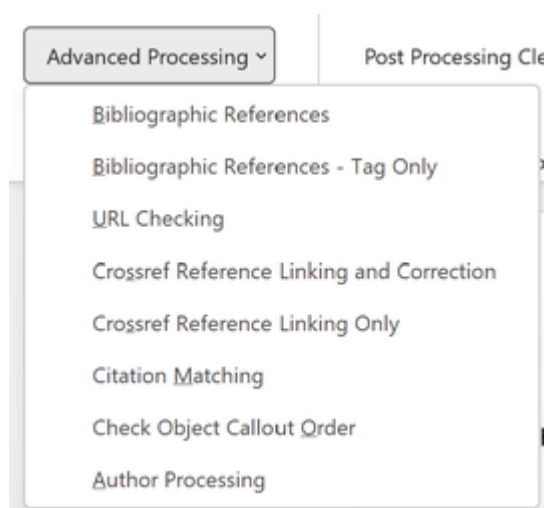
Processing and Validation

The Advanced Processing menu lists the "Processing and Validation" tools included in the USGS eXtyles configuration. These tools style and validate document content using a variety of custom processes. This section provides information on each of those processes.

> ⚠️ **Note**
> All items on the Advanced Processing menu must be run in the order they appear, top to bottom.

Bibliographic References

eXtyles greatly reduces the time an editor must spend editing reference lists and bibliographies and helps ensure that your references are set up according to your organization's preferred style. eXtyles for USGS includes both a **Bibliographic References** processing function, which automatically identifies a reference entry's type (journal, book, etc.) and restructures certain reference types based on your organization's publication style, and a **Bibliographic References - Tag Only** function, which automatically identifies a reference entry's type (journal, book, etc.) but does not perform any reference restructuring.

The Bibliographic Reference processing function can restructure most journal and book references that have no significant errors with near-perfect accuracy. References that are not restructured are visually identified for manual editing. If the Bibliographic References - Tag Only function is used, all references will need to be manually copy edited.

Only paragraphs that were styled during the Cleanup process or by hand as References are restructured during either of these steps.

Automatic Processing of References

Bibliographic References

The Bibliographic Reference processing function can restructure most journal and book references that have no significant errors with near-perfect accuracy. Color-coded styles are applied to the reference, and the reference is restructured according to the organization's style requirements. References that are not restructured are visually identified for manual editing.

Bibliographic References - Tag Only

When processing references, the user may choose to apply color-coded character styles without applying any changes in formatting, punctuation, or spacing by running Bibliographic Reference Processing - Tag Only in the Advanced Processing menu.

After Reference Processing

After reference processing, each component of the reference is identified and color-coded for easy proofing. A typical journal reference looks like this:

The first item in this example is the reference type tag **<jrn>**, which specifies the type of reference that eXtyles has identified. Possible reference types are:

- **<jrn>** Journal references
- **<bok>** Book references
- **<edb>** Edited book or book chapter references
- **<conf>** Conference proceeding
- **<eref>** Reference to a website
- **<lgl>** Citation of a legal case or statute

- **\<ths\>** Reference to a thesis/dissertation
- **\<other\>** References to working papers, patents, maps, and other documents
- **\<unknown\>** Unsupported or otherwise unknown reference type

Reference types might occasionally be incorrectly identified as **\<bok\>** or **\<unknown\>**. Misidentification is usually the result of a punctuation error by the author or a pattern that eXtyles does not support.

> ⚠ The grey shading of the \<jrn\> tag in this example is achieved by configuring Word to shade fields. We recommend that you set Word to shade fields so that it is immediately visually clear whether content is plain text or a field. To adjust this setting in Word, go to File > Options > Advanced, and in the "Show document content" section, set "Field shading" to Always.

Each element in a reference entry is identified and tagged appropriately with a character style by eXtyles during Bibliographic References processing. The following table lists common reference components and their element (character style) names:

Element	Example Text
bib_surname	Mouat / Clendenin
bib_fname	M. M. / C. W.
bib_year	1977
bib_article	Geology of the Ozark Lead Company mine, Viburnum Trend, southeast Missouri
bib_journal	Economic Geology and the Bulletin of the Society of Economic Geologists
bib_volume	72
bib_issue	3
bib_fpage	395
bib_lpage	407
bib_doi	https://doi.org/10.2113/gsecongeo.72.3.398

Character Styling of References

When references are processed by eXtyles, Word character styles such as bib_article, bib_ journal, and so on are automatically applied to each part of the reference text. If you manually edit a reference after reference processing, be sure that the character styles are correctly applied to the edited text. These character styles can be applied just like any other character styles in Word, that is, via Word's Styles feature (in Word 2010, access this menu via Home > Styles or press Control + Alt + Shift + S).

In some unusual cases, even when a reference is correctly copyedited, eXtyles may fail to process it correctly. In such cases, you should edit the reference by hand and then apply the character styles directly from the Word Style feature.

The character styles should be applied only to the actual content that is typically highlighted, not to surrounding punctuation. For example, if your organization's style includes parentheses around the year of publication, apply the bib_year character style to just the year itself, and not to the surrounding punctuation.

Styles that may be used for reference entries include the following:

Style	Use
bib_number	The reference number
bib_etal	"et al." or "and others" when it appears in the reference
bib_surname	An author's surname
bib_fname	An author's given name or initials
bib_suffix	An author's suffix (e.g., Jr., Sr.)
bib_organization	An organization name as an author
bib_book	The title of a book
bib_series	The series title in a reference
bib_article	The article title
bib_ journal	The journal name
bib_year	The year of publication
bib_volume	The volume of publication
bib_issue	The issue of publication
bib_month	The month or season of publication
bib_suppl	The publication supplement
bib_fpage	The first page of publication
bib_lpage	The last page of publication
bib_pagecount	The total page count for a reference (e.g., 420 p.)
bib_unpubl	Pre-publication information such as "in press"
bib_comment	A comment such as [Abstract]
bib_confproceedings	The title of published conference proceedings
bib_confpaper	The title of a paper in published conference proceedings
bib_conflocation	The location of the conference
bib_confdate	The date of the conference (month, day)
bib_title	A title in a reference that is not an article or book title; typically used for titles of theses and dissertations
bib_url	A URL included in a journal reference

| bib_doi | A DOI included in a journal reference |

Manual Editing and Reference Reprocessing

Once a reference has been tagged with a type (e.g., <jrn>, <unknown>), it will not be reprocessed if you rerun Advanced Processing > Bibliographic References. eXtyles ignores tagged entries on successive passes of this function. If you wish to reprocess a reference after making some changes to it, you can remove the reference type tag. For example, the following reference failed to process correctly due to the double punctuation after the volume number:

<unknown>Janmey, P. A. "Protein regulation by phosphatidylinositol lipids." *Chemistry & Biology* 2;:1 (1995): 61–65. </unknown>

You can fix the punctuation manually—that is, delete the extra colon after the volume number— and then remove the reference type tags (by backspacing over the tag, or by selecting the tag and cutting it with Control-X) so that the reference looks like this:

Janmey, P. A. "Protein regulation by phosphatidylinositol lipids." *Chemistry & Biology* 2;1 (1995): 61–65.

After selecting the Bibliographic References menu item again, the reference will be properly restructured as shown here:

<jrn>Janmey, P. A. "Protein regulation by phosphatidylinositol lipids." Chemistry & Biology 2, no. 1 (1995): 61–65.</jrn>

Hiding the reference type tags is not the same thing as deleting them. To reprocess a reference, you must actually delete the tags at the start and end of a reference. Hiding them with the View Tags/Hide Tags menu item will make the tag disappear on screen, but it will not cause a reference to be reprocessed.

> ⊗ **Warning**
>
> Do not copy reference type tags from one reference and paste them onto another reference. These tags may be applied only automatically by Bibliographic References processing or by using the Insert Tags option on the eXtyles menu. Copying and pasting these tags may cause failures in other Advanced Processing operations.

Errors can be fixed even without removing the colored highlights and styles. Bibliographic References processing removes all highlighting before reprocessing a reference. Colored highlights and styles are reapplied before the results of the Bibligraphic References processing function are displayed on screen.

What to Expect When You're Reference Processing

eXtyles Bibliographic Reference Processing is a powerful tool, and it can save editors a significant amount of time editing a reference list, because references that are fully color coded and restructured need only be lightly proofed. However, it is important to understand the limitations of Reference Processing so that the editor's role in an eXtyles workflow is clear. This section will describe what you can expect eXtyles to do and not to do during reference processing and what the implications are for USGS editors.

What You Can Expect Reference Processing to Do

eXtyles Reference Processing performs two primary functions: (1) it identifies the semantically distinct elements of the reference entry and applies meaningful, color-coded character styles to each element and (2) it restructures book (<bok>, <edb>) and journal (<jrn>) references to conform to USGS editorial style.

In addition to the editorial benefit, the automated identification of reference elements and application of character styles is used to produce granular tagging of the reference entry in the XML exported from Word by eXtyles.

Book and Journal References

eXtyles will fully tag references that it identifies as books (<bok>, <edb>) and journals (<jrn>). When your references appear as in the examples to the right, without any added eXtyles warnings (in the form of Word comments), you can safely assume that eXtyles has correctly identified the various elements of the reference and restructured them according to USGS editorial style.

Further, the color of the character styles that eXtyles applies to these references enables the editor to quickly proof the reference entry. In these examples, it is easy to see that the reference elements have been correctly identified and the references have been accurately edited.

Book and Journal Reference Examples

‹bok›·Emsley,·J.,·2011,·Nature's·building·blocks—An·A–Z·guide·to·the·elements:·Oxford,· Oxford·University·Press,·538·p.·‹/bok›·¶

‹edb›·Collins,·A.G.,·1976,·Lithium·abundances·in·oil·field·waters,·*in*·Vine,·J.D.,·ed.,·Lithium· resources·and·requirements·by·the·year·2000:·U.S.·Geological·Survey·Professional·Paper·1005,· p.·116–123.·[Also·available·at·http://pubs.er.usgs.gov/·publication/pp1005.]·‹/edb›·¶

‹jrn›·Domingo,·J.L.,·1994,·Metal-induced·developmental·toxicity·in·mammals—A·review:· Journal·of·Toxicology·and·Environmental·Health,·v.·42,·no.·2,·p.·123–141.·‹/jrn›·¶

Conference Proceedings

eXtyles will also attempt to fully color code those references it identifies as conference proceedings (<conf>). However, because of the variety of formats that conference proceedings can take, eXtyles will not restructure these references. Your editors will still need to edit <conf> references to conform to USGS editorial style, and care will need to be taken to ensure that any color coding that has been applied is correctly retained during manual editing.

Conference Reference Example

·conf›·Nossoff,·S.I.,·2012,·GeoProMining—A·story·of·success·in·the·CIS·region:·Presented·at· the·CERBA·Russia·and·Eurasia·Mining·Conference,·Toronto,·Ontario,·Canada,·March·6,·25· p.·‹/conf›·¶

Electronic References, Legal Documents, and Theses/Dissertations

Because of the variety of formats in which references to certain types of documents can take, eXtyles will not fully color code or restructure references that it identifies as electronic (<eref>), legal (<lgl>), and thesis (<ths>).

Note that eXtyles will still try to identify and color code certain elements of these types of references. For every reference, eXtyles will attempt to color code: (1) author given name, (2) author surname, and (3) publication date. Additionally, for some references (e.g., conferences and theses and dissertations), eXtyles will also attempt to color code the document title and URL or DOI. It is critical that for every reference the author name(s) and date are color coded, which enables eXtyles to perform accurate citation matching; however, if eXtyles has failed to color code other parts of the reference (e.g., the title), it is not essential that you manually apply color coding to those elements.

Electronic, Legal, and Thesis /Dissertation Reference Examples

·eref›·Masters,·H.B.,·2007,·Antimony—2006·(Last·updated·August·17th):·Mining·Journal· Online,·accessed·May·1,·2012,·at·http://www.mining-journal.com/focus/special-reports/antimony-2006-last-updated-august-17th·.·[Available·by·subscription·only.]·‹/eref›·¶

‹lgl›·Brown·v.·Board·of·Education·of·Topeka,·347·U.S.·483·(1954).·‹/lgl›·¶

‹ths›·Adams,·R.F.,·"Geophysical·identification·of·subsurface·cavities·and·fractures·near·a· Superfund·site·south·of·Rockford,·Illinois":·PhD·dissertation,·Northern·Illinois·University,· 2013,·89·p.·‹/ths›·¶

Also, because eXtyles will not restructure these types of references, your editors will still need to manually copyedit references that are tagged as <eref>, <lgl>, and <ths>.
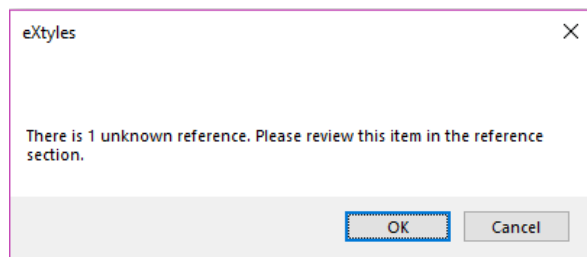
Other and Unknown References

Other

Most types of references not covered by the previously described tags will fall into the <other> category, including working papers, patents, maps, and other documents. The example shows a reference to a map (atlas) that has been correctly tagged as <other>.

Unknown

eXtyles will provide a message after Bibliographic Reference Processing has completed that will include the number of <unknown> references eXtyles identified:

Other (Map) Reference Example

other Luckey, R.R., Gutentag, E.D., and Weeks, J.B., 1981, Water-level and saturated-thickness changes, predevelopment to 1980, in the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming: U.S. Geological Survey Hydrologic Investigations Atlas HA–652, 2 sheets, scale 1:2,500,000. /other ¶

Unknown Reference Example

unknown Esri, 2016, ArcMap version 10.3.1: Redlands, Calif., Esri software documentation [online documentation and instructions included with GIS software]. /unknown ¶

It is important to note whether there are <unknown> references in the document, because they will need to be carefully reviewed to see whether the reference is, in fact, something known (like a journal) and was not correctly identified because of an error in the source content.
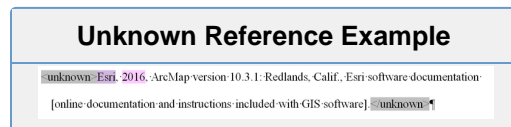
For example, the following reference is, to the human eye, clearly a journal article:

> *Cohn, T.A., W.L. Lane, and Baier, W.G., 1997, An algorithm, for computing moments based flood quantile estimates when historical flood information is available, Water Resour. Res., 33(9), 2,089-2,096.*

However, eXtyles tags it during Reference Processing as <unknown>:

<unknown>Cohn, T.A., W.L. Lane, and Baier, W.G., 1997, An algorithm, for computing moments based flood quantile estimates when historical flood information is available, Water Resour. Res., 33(9), 2,089-2,096.</unknown>¶

This is because the commas in the four-digit page range prevent eXtyles from being able to confidently identify the reference as a journal (<jrn>). You will want to remove the commas from the page range and reprocess this reference so that it is correctly

tagged as <jrn> and so that you can take advantage of Reference Restructuring and Crossref Linking and Correction. (See Manually Editing References for more information.)

> ⚠️ **Note**
>
> eXtyles **Auto-Redact** will remove commas from four-digit page numbers. Because Auto-Redact is run *before* Reference Processing, you should rarely see incorrect tagging of references as a result of this type of format

Once the user removes the commas from the page range, deletes the <unknown> tags, and re-runs Reference Processing, the reference will be processed correctly:

<jrn>Cohn, T.A., Lane, W.L., and Baier, W.G., 1997, An algorithm, for computing moments-based flood quantile estimates when historical flood information is available: Water Resources Research, v. 33, no. 9, p. 2089–2096.</jrn>¶

Reference Processing and USGS Publications

eXtyles Reference Processing will tag, color code, and restructure USGS active publications, such as Professional Papers, Techniques and Methods, Circulars, and so on. These publications should be tagged as <bok>, as in the examples.

However, there are some formatting conventions that will cause eXtyles to unsuccessfully identify and process a reference to a USGS publication. Following are the most common causes of eXtyles processing issues.

Format of Author Given Names

> ℹ️ As of early 2018, USGS editorial style has been updated to use initials for author given names in a reference list, regardless of whether the author uses one or two (or more) given names. When this style is used, eXtyles will generally have no problem properly color-coding author names during Bibliographic Reference Processing.
>
> However, the former USGS editorial style of using a mixture of initials and spelled-out given names within a single reference may appear in documents that were authored prior to the editorial style update. Because you may continue to encounter this editorial style, the following information is provided, which explains eXtyles behavior with regard to this style,

USGS Publications Reference Examples

<bok> McGuire, V.L., 2014, Water-level changes and change in water in storage in the High Plains aquifer, predevelopment to 2013 and 2011–13: U.S. Geological Survey Scientific Investigations Report 2014–5218, 14 p. </bok> ¶

<bok> McGuire, V.L., Johnson, M.R., Schieffer, R.L., Stanton, J.S., Sebree, S.K., and Verstraeten, I.M., 2003, Water in storage and approaches to ground-water management, High Plains aquifer, 2000: U.S. Geological Survey Circular 1243, 51 p. [Also available at http://pubs.usgs.gov/circ/2003/circ1243/.] </bok> ¶
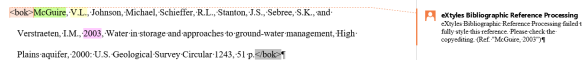
<bok> Qi, S.L., 2010, Digital map of aquifer boundary for the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Wyoming: U.S. Geological Survey Data Series 543. [Also available at http://pubs.usgs.gov/ds/543/.] </bok> ¶

> and how you can achieve properly color-coded references when this style is used.

The mixture of initials and spelled-out given names in a single reference falls outside of eXtyles's automation capabilities. When such a mix of styles is used, eXtyles is unable to disambiguate the components of the authors' names, and will fail to fully color code and restructure the reference. For example, this reference:

> *McGuire, V.L., Johnson, Michael, Schieffer, R.L., Stanton, J.S., Sebree, S.K., and Verstraeten, I.M., 2003, Water in storage and approaches to ground-water management, High Plains aquifer, 2000: U. S. Geological Survey Circular 1243, 51 p.*

will result in the following after Bibliographic Reference Processing:

You can see that eXtyles was unable to proceed with color coding and restructuring after the first author's name. This is because the second author's given name (Johnson, Michael) is spelled out, and eXtyles is consequently unable to safely disambiguate the given names from the surnames in the rest of the author list. Rather than incorrectly restructure the reference, eXtyles stops color coding, and adds a helpful warning in the form of a Word comment.

There are a couple of ways to resolve this: (1) prior to running Reference Processing the author given names can be edited to conform to a consistent style (either initials or spelled out), or (2) the reference can be edited after Reference Processing, and then reference processing can be re-run.

To perform the second option, you will need to manually change the author's spelled-out given name to M. and remove the eXtyles tags (<bok>):

After re-running Reference Processing the result is a correctly tagged and color-coded reference:

`<bok>`McGuire, V.L., Johnson, M., Schieffer, R.L., Stanton, J.S., Sebree, S.K., and Verstraeten, I.M., 2003, Water in storage and approaches to ground-water management, High Plains aquifer, 2000: U.S. Geological Survey Circular 1243, 51 p.`</bok>`

Plate, Sheet, and Scale Information for Non-Map Publications

As discussed in the previous section "Other and Unknown References," eXtyles will tag references it identifies as maps as <other>, and only color code the author names and publication date. eXtyles will not restructure references identified as <other>.

Occasionally, non-map USGS publications contain maps and, consequently, sheet and scale (and plate) information can appear in a reference to that publication. For example, the following Professional Paper contains map, sheet, and scale information:

> *Christiansen, R.L. 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper 729–G, 145 p.; 3 map sheets, scale 1:125,000. [Also available at http://pubs.usgs.gov/pp/pp729g]*

During Reference Processing, the reference will be processed the way eXtyles, correctly, handles other maps:

<other>Christiansen, R.L., 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper 729–G, 145 p.; 3 map sheets, scale 1:125,000. [Also available at http://pubs.usgs.gov/pp/pp729g]</other>

But because this publication is actually a Professional Paper, <other> might not be appropriate. In order for eXtyles to tag this reference as <bok>, the map, sheet, and scale information needs to be moved to a place that will allow eXtyles to identify the reference as a Professional Paper and not a map. The information could either be removed from the reference entirely or moved to within the bracketed comment. If the latter option is selected, the reference will process like the following:

<bok>Christiansen, R.L., 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper 729–G, 145 p. [3 map sheets, scale 1:125,000. Also available at http://pubs.usgs.gov/pp/pp729g]</bok>

Then, so that the reference conforms to USGS editorial style, move the sheet and scale information back to outside of the brackets, and remove the color coding by selecting the sheet and scale information and hitting Ctrl + Space (which formats the content as plain text). The correctly edited reference looks like this:

<bok>Christiansen, R.L., 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper 729–G, 145 p., 3 map sheets, scale 1:125,000. [Also available at http://pubs.usgs.gov/pp/pp729g]</bok>

<other> or <bok>: What's the Difference?

Both <other> and <bok> references will make their way through eXtyles processing without problems (e.g., Citation Matching, XML Export). However, whether the reference is left as <other> or manipulated so that eXtyles tags it as <bok> has a few key implications, both editorially and in the XML.

Editorial Implications

Crossref Linking and Correction

Crossref Linking and Correction does not check references tagged as <other>; it only checks references tagged as <jrn>, <bok>, or <edb>. Therefore, if you would like the reference to be validated against Crossref and possibly have the DOI inserted (if a match is found), the reference will have to be tagged as <bok>, and it will need to have been successfully color coded by Bibliographic Reference Processing. See the examples to the right; the <bok> example could then be edited to remove the sheet and scale information from the brackets, in compliance with USGS editorial style.

> ⚠ **Note**
>
> Not all publications are cataloged by Crossref, and so simply changing a reference's tags to <bok> or fully color coding a reference does not guarantee that Crossref Linking and Correction will successfully return a DOI.

Automatic Reference Restructuring

eXtyles will not attempt to restructure references tagged as <other>; however, eXtyles will attempt to restructure

Crossref Linking and Correction Examples

<other>

<other>McGuire, V.L., 2014, Water-level changes and change in water in storage in the High Plains aquifer, predevelopment to 2013 and 2011–13: U.S. Geological Survey Scientific Investigations Report 2014–5218, 14 p.; 3 map sheets, scale 1:125,000.</other>

<bok>

<bok>McGuire, V.L., 2014, Water-level changes and change in water in storage in the High Plains aquifer, predevelopment to 2013 and 2011–13: U.S. Geological Survey Scientific Investigations Report 2014–5218, 14 p. [3 map sheets, scale 1:125,000] https://doi.org/10.3133/sir20145218</bok>

Automatic Reference Restructuring Examples

Christiansen, R.L. 2001. The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana. U.S. Geological Survey Professional Paper 729–G, 145 p.; 3 map sheets, scale 1:125,000. [Also available at http://pubs.usgs.gov/pp/pp729g]

<other>

<other>Christiansen, R.L., 2001. The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana. U.S. Geological Survey Professional Paper 729–G, 145 p.; 3 map sheets, scale 1:125,000. [Also available at http://pubs.usgs.gov/pp/pp729g]</other>

<bok>

<bok>Christiansen, R.L., 2001, The Quaternary and Pliocene Yellowstone Plateau volcanic field of Wyoming, Idaho, and Montana: U.S. Geological Survey Professional Paper 729–G, 145 p. [3 map sheets, scale 1:125,000; Also available at http://pubs.usgs.gov/pp/pp729g]</bok>

references tagged as <bok>. For example, in the reference example to the right, periods incorrectly enclose the publication date, and there is a period after the document title rather than a colon. The incorrect punctuation is retained in the reference tagged as <other>, while the punctuation in the reference tagged as <bok> is correctly edited.

XML Implications

Publication Type

References tagged as <other> will be identified as such in the XML (e.g., <mixed-citation publication-type="other">), whereas references tagged as <bok> will be identified accordingly in the XML (e.g., <mixed-citation publication-type="book">); see the below code examples.

Granularity in the XML

References tagged as <other> will not have all of the granular parts of the reference entry identified in the XML; only the author names and date will have unique tagging in the XML. Whereas references tagged as <bok> will have all of the granular parts of the reference identified as such in the XML. For example:

<other>

```
<ref id="r1"><mixed-citation publication-type="other">Luckey, R.R., Gutentag, E.D., and
Weeks, J.B., 1981, Water-level and saturated-thickness changes, predevelopment to 1980,
in the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico, Oklahoma,
South Dakota, Texas, and Wyoming: U.S. Geological Survey Hydrologic Investigations Atlas
HA-652, 2 sheets, scale 1:2,500,000.</mixed-citation></ref>
```

<bok>

```
<ref id="r8"><mixed-citation publication-type="book"><person-group person-group-type="
author"><string-name name-style="western"><surname>Qi</surname>, <given-names>S.L.</given-
names></string-name></person-group>, <year>2010</year>, <source>Digital map of aquifer
boundary for the High Plains aquifer in parts of Colorado, Kansas, Nebraska, New Mexico,
Oklahoma, South Dakota, Texas, and Wyoming</source>: <series>U.S. Geological Survey Data
Series</series> <volume>543</volume>. <comment>[Also available at http://pubs.usgs.gov/ds
/543/.]</comment></mixed-citation></ref>
```

Reference Processing Query Insertion

If eXtyles adds queries (which appear as Word comments) during Bibliographic Reference processing, an alert will appear after processing is complete to indicate the number of queries added. No alert is shown when queries have not been added. You can view or hide the Word comments that are inserted via the Review ribbon > Show Markup > Comments.

The following conditions can cause eXtyles to add queries during journal reference processing:
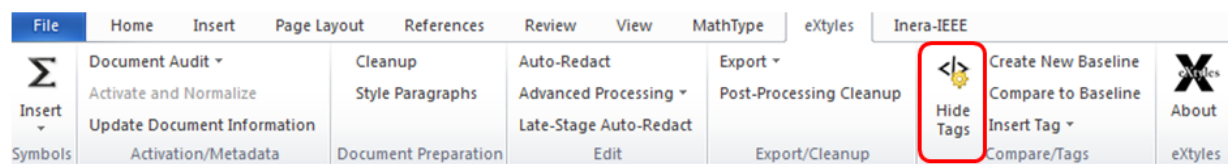
- A journal title is found that is not in the eXtyles journal title database
- The first page number is greater than the last page number
- A reference has only a first page number and not a last page number
- The reference does not have an article title
- Could not find a publisher name for a book reference (<bok>)
- Could not find a publisher location for a book reference (<bok>)

Viewing References

If necessary, toggle the Hide Tags button on the eXtyles ribbon to turn on and off the display of reference type tags (<jrn>, <bok>, etc.).

> ⊗ **Warning**
>
> Do not delete the tags in order to hide them, because they carry important information used by other functions on the Advanced Processing menu.

URL Checking

The URL Checking function:

- Identifies URLs in the document (regardless of whether they are already Word hyperlinks)
- Converts them to clickable hyperlinks, if they are not already clickable, by turning them into Word Hyperlink fields
- Automatically corrects common problems with special characters or spaces found in URLs
- Checks on the Web to determine whether the link is valid

Valid URLs—URLs that may be followed without redirection to the indicated website—are not flagged. URLs that return any HTTP error code other than 200 (i.e., ones with no HTTP error) will have a Word comment inserted to bring attention to the invalid URL and provide an indication of the error encountered in attempting to follow the link.

For example, a link that points to a nonexistent page will have a Word comment inserted indicating that the server returned an HTTP 404 ("Not Found") status code: http://www.inera.com/~kdkdkd
Comment: URL Validation failed because the page http://www.inera.com/~kdkdkd does not exist (HTTP error 404).

URL Validation will also try to fix some cases of URLs that contain invalid characters or spaces, as sometimes happens during the editing process. For example, spaces sometimes appear mid-URL, which would cause a URL to fail in a browser. When possible, URL Validation will remove the incorrect spaces and add a comment such as: The URL "http://dtd.nlm.nih.gov/ faq.html" has been corrected. One or more spaces were removed.

Examples of other cleanup cases include replacing en dashes with hyphens, or similar characters with a simple tilde.

> ⚠ **Note**
>
> URL Checking is best run *after* Bibliographic References processing because URL conversion to clickable hyperlinks when they're found in reference lists interferes with eXtyles recognition of electronic references during Bibliographic References processing.

Redirected URLs

Experience has shown that the most common warning from URL Checking is that a URL has been redirected to a different final URL. There are many reasons for this, including:

- A website has been reorganized and the (wise) webmaster has automatically redirected old URLs to the new pages. In cases such as this, you may want to update the URL in the document to reflect the most current URL.
- A "vanity" URL has been used. For example, some drug manufacturers will register a domain for a drug name, but when you follow the URL to the website of the drug, you actually visit the manufacturer's landing page. In such cases, you might want to keep the vanity URL for the drug (despite the redirection warning) because the drug manufacturer could be acquired, and the ultimate landing page would change. In other words, when a URL is redirected, we recommend keeping in the document the URL that will likely have the longest life.

- Some URLs are always redirected. For example, URLs to articles on the New York Times website have a new and unique final URL on every single visit, even though the URL you click is identical. Redirection is performed in this case for the purpose of tracking web visitors. In such cases, the redirect warning can be ignored.

Excluded URLs

URL Checking does not check URLs that link to PubMed and Crossref in reference lists because these links have likely been added by eXtyles.

Limitations of URL Checking

URL Checking has the following limitations:

- If a hyperlink has no comment after URL Validation, there's no guarantee that it points to a working page. Some websites redirect links for now-dead pages to a standard page that indicates a page has moved. For critical cases, there is still no substitute for a manual check of each page.
- A Word hyperlink with an underlying "mailto" property, indicating that the hyperlink is an email address, will not be validated.

Crossref Reference Linking and Correction

Crossref is an official DOI registration firm that functions as a cooperative cross-publisher collaboration to enable accurate and useful citation linking via DOIs (Digital Object Identifiers). A DOI is an identifier that is unique for each content item and it does not change with time.

To run Crossref Reference Linking and Correction on a document:

1. Complete Bibliographic Reference processing, including the cleanup and reprocessing of all references that eXtyles did not automatically fix.
2. Be sure you have a connection to the Internet.
3. Select eXtyles > Advanced Processing > Crossref Reference Linking and Correction.

Crossref Reference Linking and Correction should take approximately 30 seconds for 60 references, and it includes the following features:

1. It informs you of the number of references that match rather than the number that failed to match.
2. Its results are generally quite good, but occasionally incorrect results occur because eXtyles will try to match a reference even if not all components of the reference are correct. In all cases in which a match is made with this so-called fuzzy matching, you will receive a warning in the Word document that the reference data and the Crossref data do not match.
3. It has been configured to automatically insert the DOI as a hyperlink in the reference section. This insertion makes it easy to identify which references have been matched on Crossref.

Crossref Linking Only

In some cases, a user may want to link to CrossRef without adding any additional information to the reference. In order to add the DOI without adding additional information, the user may run Crossref Linking Only from the Advanced Processing menu.

Reference Correction

Crossref Reference Linking and Correction will also intelligently mark and merge discrepancies between your reference and the Crossref record. Further, Crossref correction will add missing data (e.g., additional author names or missing volume or page numbers) to the reference. However, Crossref correction will not attempt to correct **existing** data (e.g., article titles) supplied by the author; rather, the process will provide a warning that information does not match.

> ⚠ **Note**
>
> Crossref Reference Linking and Correction only attempts to match against the Crossref database those references identified as <jrn>, <bok>, or <edb> during Bibliographic Reference processing.

In the following example, Crossref correction has identified discrepancies between content in the reference in the Word document and content on the Crossref record. These discrepancies are noted in Word comments:

When these types of comments are returned by the Crossref Linking and Correction process, the editor can simply click to the document's online record via the DOI link that eXtyles inserted, verify the reference information, and make corrections to the reference as needed.

Further, for some discrepancies, eXtyles Crossref Linking and Correction will provide the information from the Crossref record in the Word comment in a format that allows the editor to simply copy and paste from the comment into the reference entry. In the following example, Crossref Linking and Correction identified a discrepancy between the author names in the reference and in the Crossref record:
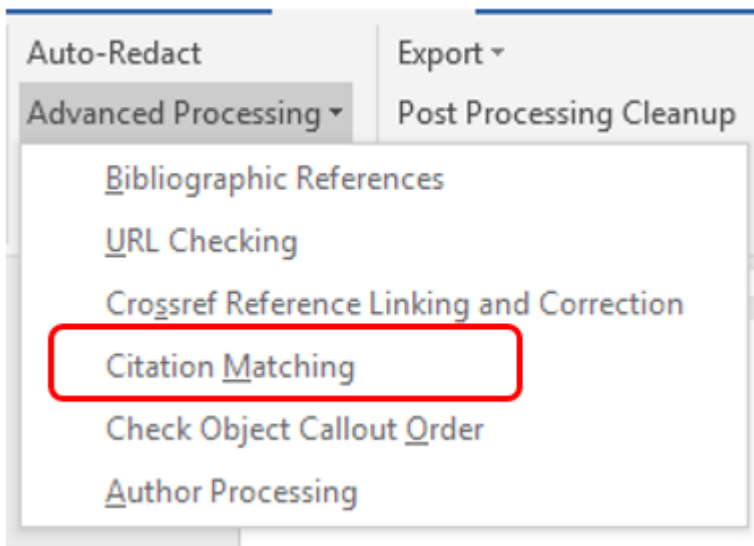
<jrn>Rigby, J.K., Linder, G.A., and Stevens, C.H., 2004, A new occurrence of the "Hydrozoan"
Radiotrabeculopora reticulata Fan, Rigby, and Zhang, 1991 in the Permian of California:
Journal of Paleontology, v. 78, no. 2, p. 410–413. https://doi.org/10.1666/0022-
3360(2004)078<0410:ANOOTH>2.0.CO;2.</jrn>

eXtyles CrossRef Reference Correction
eXtyles has not updated the authors because of a
name mismatch. Please compare "Rigby" with "Keith
Rigby". The CrossRef authors are Keith Rigby, J.,
Linder, G.A., and Stevens, C.H.. (Ref. "Rigby,
Linder, Stevens, 2004")

If the editor determines that the information in the Crossref record is correct, the author names can simply be copied and pasted from the comment into the Word document. Note that in the Word comment the correct author names are presented in the correct editorial style and are color coded with the correct eXtyles character styles.

Citation Matching

Citation Matching automates the lengthy process of comparing and matching in-text citations with their references, including bibliographic reference entries as well as objects such as figures, tables, and boxes that are called out within the text.

In addition to matching citations and callouts with their references and objects, Citation Matching performs the following tasks automatically:

1. Identifies all in-text bibliographic citations for which there is not a matching reference entry.
2. Identifies all reference entries for which there is not at least one in-text citation.
3. Identifies all figure, table, box, and appendix callouts for which there is not a matching figure, table, box, or appendix title.
4. Identifies all figure legends, box legends, table titles, and footnotes (unlinked and plain text) for which there is not at least one callout.

Each of these issues, if it occurs, is automatically indicated by eXtyles in your document with the insertion of an author query in the form of a Word comment. The actual citations and callouts in the manuscript are indicated with color coding to aid in proofing.

Using Citation Matching

To use Citation Matching:

1. Be sure that you have first run Bibliographic Reference Processing.
2. Select Citation Matching from the eXtyles Advanced Processing menu. You will see a dialog asking you to select the bibliographic citation style used in the document.
3. Select the appropriate style, which for USGS will be Harvard Style (Name/date in parentheses or brackets).
4. Click OK.

> ⚠️ **Note**
> You can also run Citation Matching on objects only. To do this, select "No References; match objects (figures, tables)" from the Citation Style dialog.

Citation Matching Query Insertion

If eXtyles adds queries during Citation Matching, an alert will appear after processing is complete to indicate the number of queries added. An alert is also shown when queries have not been added to indicate that Citation Matching completed successfully.

Citation Matching Failures

Citation Matching automatically applies the character style cite_bib to all reference citations in text. Occasionally, eXtyles will fail to automatically apply this style during Citation Matching. In such cases, the character style "cite_bib" should be applied by hand from the Word Styles menu (Home > Styles).

Similarly, Citation Matching automatically applies the character styles cite_fn (for footnotes), cite_fig (for figures), cite_box (for boxes) and cite_tbl (for tables) to all callouts in the text. Occasionally, eXtyles will fail to automatically apply these styles during Citation Matching. In such cases, the appropriate style must be applied by hand from the Word Styles menu to the callout. Citation Matching can then be run again to ensure the accuracy of these hand-applied styles.

Common Causes of Query Insertion

Citation-matching queries may be inserted for many reasons. The following describes common queries that you might encounter after running Citation Matching.

Figure and Table Matching

1. Citation to another article: Citation Matching incorrectly sees citations to figures and tables in other articles, such as "See figure 1 in Smith (1999)", as part of the current article. Queries about such false-positives are incorrect and should be removed by deleting the Word comment.
2. Incorrect styling: Citation Matching relies on correct styling of paragraphs. Please make sure the figure legends and table titles are styled correctly if you see erroneous queries.

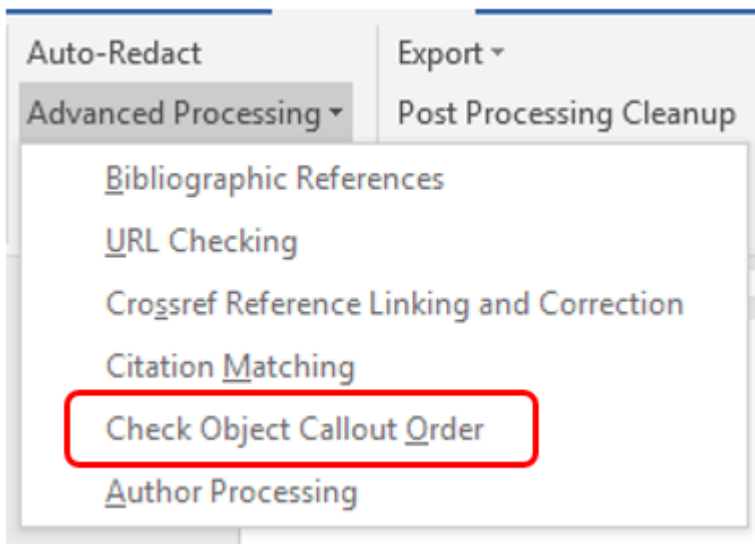## Harvard (Name-Date) Citation Matching

1. Incorrect spelling: If a name is misspelled, a match will not be made. Be sure to look at all names (not just the first) and accented characters.

2. Incorrect character: For names with apostrophes, make sure the same type of apostrophe is used in both the citation and the reference. For example, "D'Aria" is not the same name as "D'Aria" (one uses a right single quote, and the other an apostrophe).

3. Incorrect date: If the dates are not identical, a match will not be made.

4. Incorrect author processing: If authors in a reference have names that Bibliographic References is unable to correctly process, the reference will be given a type of <unknown>. If the highlighting of the authors is incorrect in the reference, but the names and dates are correct, such queries are erroneous and should be removed by deleting the Word comment containing them.

5. Mismatch in number of authors: If the number of authors found in the reference does not match the citation style, then no match will be made. The following cases will not match and will cause a query to be inserted:

Reference	Incorrect Citation	Reason
Smith, A. (1999) Article Title	(Smith and Jones, 1999)	Only one author is listed in the reference, but the citation indicates two authors
Smith, A. (1999) Article Title	(Smith et al., 1999)	Only one author is listed in the reference, but the citation indicates at least three authors
Smith, A. and Jones, B. (1999) Article Title	(Smith, 1999)	Two authors are listed in the reference, but the citation indicates only one author
Smith, A. and Jones, B. (1999) Article Title	(Smith et al., 1999)	Two authors are listed in the reference, but the citation indicates at least three authors
Smith, A., Jones, B., and Lee, C. (1999) Article Title	(Smith, 1999)	Three (or more) authors are listed in the reference, but the citation indicates only one author
Smith, A., Jones, B., and Lee, C. (1999) Article Title	(Smith and Jones, 1999)	Three (or more) authors are listed in the reference, however the citation indicates two authors

6. Initials included in citations: Citations that include author initials will not be handled correctly. For example, "See A. Smith and B. Jones (1999)" will not be matched. It must be edited as "See Smith and Jones (1999)". If this style creates conflicts with multiple references, letters (1999a and 1999b) should be added.

7. Active citations: Active citations in text—such as "Smith and Jones, 1999, proved in their experiment"—will not be matched. Either the entire citation or the year must be enclosed in parentheses (or [brackets] if nested inside parentheses).

Check Object Callout Order

Check Object Callout Order automates validation of the citation order of figure, table, and box citations. It reports problems when citations are found out of the correct order.

To use the Check Object Callout Order function:

1. Run eXtyles up through the Citation Matching function, and complete any appropriate cleanup.
2. Select eXtyles > Advanced Processing > Check Object Callout Order.

> ⚠️ **Note**
>
> We do not recommend running Check Object Callout Order prior to running Citation Matching.

An alert is shown when queries have not been added to indicate that citation order checking completed successfully. If any problems have been detected, an alert will indicate the number of queries, or comments, inserted.

In some cases, if a large number of problems are detected, eXtyles reports only the first ten problems. After you have fixed these problems, please rerun the Check Object Callout Order function again.

Author Processing

Author Processing automatically identifies and tags all sub-elements in the paragraph in your document that contains the author name(s). This tagging is used primarily for the production of XML directly from eXtyles. It can also be used to help compositors automatically identify author names that will be used in constructing running heads.

> ⚠️ **Note**
>
> Be sure that you have completed copy editing of the manuscript before you run this process. Author Processing is designed to tag copy edited elements, not to automate copy editing.

When you have completed copy editing, select eXtyles > Advanced Processing > Author Processing. The author paragraph(s) will be tagged and highlighted. For example, an author paragraph will appear like this after Author Processing:

All components of the author line, except for punctuation and connecting words, are color coded. In addition, the author name components are styled with Word character styles such as au_fname or au_surname.

Color coding is provided for proofing purposes. If a name is miscoded by the automatic processing, it may be correctly coded by selecting the character styles lists in the following table from the Word Styles menu. The following table shows the color coding and character style applied to each part of an author name.

Part	Character Style	Example Text
First Name	au_fname	M. Dennis

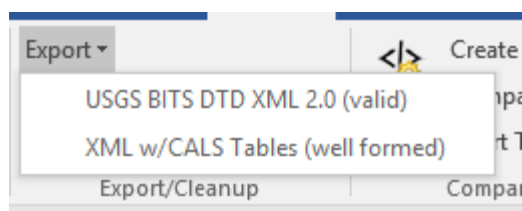| Surname	au_surname	Krohn
Generation	au_suffix	Jr.
Degree(s)	au_deg	MD
Footnote link	cite_fn	[1] or *
Collaboration	au_collab	for the Biological Research Study Group

Final Export and Cleanup

Final steps for file handling when you have completed eXtyles operations will depend on the specific workflow for the particular document. However, typically, USGS documents will proceed through the following workflow:

- Export of the Word file with eXtyles to XML, which is then fed into an automated InDesign layout process. For this workflow, please review the section on XML Export.

Those documents that need to be printed to PDF directly from Word may proceed through the following workflow:

- Import the Word file into a desktop publishing application (e.g., Adobe InDesign) or create a PDF directly from Word. For this workflow, please review the section on **Post-Processing Cleanup**. Post-Processing Cleanup removes some information added by eXtyles that is required for XML creation but that can intrude on other applications that may read Word files.

BITS DTD Export Filter

The USGS eXtyles implementation uses the BITS 2.0 export filter, which is designed to create XML files that are valid according to the BITS (Book Interchange Tag Suite) DTD. When exporting files from eXtyles, select the USGS BITS DTD XML 2.0 (valid) option from the drop-down on the Export menu. This option will convert the file from a Word document to XML and perform a validating parse of the XML against the DTD. The new file is by default saved with the same name as the Word file, except that it has an .XML file extension.

> ⚠️ **Note**
>
> Before creating the export, it is **very important** to style the document correctly and run all eXtyles functions as specified. In addition, correct copyediting of the document to USGS style, especially with regard to the front matter (e.g., authors, affiliations, and footnotes) is essential.
>
> Failure to style and edit the document correctly prior to export may result in parsing errors or the production of incorrect XML.

Export Notes

> ❌ **Warning**
>
> Never use an XML file created by eXtyles that has not parsed successfully!

The following items should be kept in mind when preparing manuscripts for export:

1. **Only use paragraph styles that appear on the eXtyles Paragraph Styling palette.** Any other styles may result in XML parsing errors, or possibly XML that parses but is not correct. A warning is given during export if any non-conformant paragraph styles are used.

2. **All tables, or content styled with the Table elements of the paragraph styles palette, must be in Word table format.** Otherwise, an export is likely to produce parsing errors. All content for each table should be in a single Word table. Splitting content for a single table across multiple Word tables will likely result in incorrect XML and may result in parsing errors.

3. **If one Word table immediately follows another, there must be a blank paragraph between the tables.** This blank paragraph cannot have any of the table paragraph styles applied to it. It may be styled as a regular paragraph or left as "Normal". To avoid the need for blank paragraphs between tables, Inera recommends that table titles and footnotes be placed outside of the Word table as ordinary paragraphs.

4. **No information should be set in a table that is not intended to be in a table in XML.** For example, if a table has been used to format the layout of figures and captions visually in the Word document for creation of author proofs, such items should be "de-tabled" before export.

5. **Ranges of objects (e.g., "Figs 1–4" or "Tables 1–3") are not recommended because there is no text for a reader to click on in an electronic product to reach, say, Fig. 2 in the first example.** Although such ranges may parse and can be set up to yield usable XML, it may be easier to reword these citations as "Figs 1, 2, 3, and 4" and "Tables 1, 2, and 3".

6. **Place front matter sections in the order in which they will appear in print.** In general, eXtyles is quite flexible about the order of front-matter or metadata paragraphs — it will automatically reorder them according to the DTD requirements during export. However, it is always best to place paragraphs in the same order as they appear in print, except that footnotes may appear at the end of the Word file. Note that when author/affiliation information appears at the end of items (e.g., editorials, letters), it may be placed at the end in the Word document and eXtyles will correctly place the elements in the front matter according to the DTD requirements.

7. **Title Appendix sections properly.** All appendix matter must start with either a paragraph styled as an appendix head, or with a figure or table that has: (a) "Appendix" in the label (e.g. "Appendix 1"), or (b) an uppercase letter preceding the number (e.g. "Table A1").

⚠️ **Note**

USGS eXtyles configuration also has a well-formed export option: XML w/CALS Tables (well formed). Well formed XML is simply an XML version of the document that has been checked to ensure that each text element has balanced (i.e., beginning and end) tags. Because well formed XML has not been validated against the BITS DTD, **you should never use it to generate XML for your workflow**. Always use the USGS BITS DTD XML 2.0 (valid) export filter.

Metadata Update

Some time may have passed from when you first Activated your document in eXtyles to when you are ready to export XML. During document **Activation** you were required to enter metadata into the Document Information dialog, such as report number and publication year. However, some of that information may have changed in the intervening time or you may now have information about the document that you did not have when you first Activated it (e.g., ISBN, etc.).

It is important that the metadata about the document be up to date and as complete as possible. Because of that, eXtyles will provide a warning when you attempt to export XML and have not updated the Document Information dialog in more than one day.

Click Yes and you will be taken back to the Document Information dialog, where you can update the fields as needed. Click OK in Document Information, and the XML export will proceed.

Click No, and the XML export will proceed.

Preparing the Word file for Export: Getting It Right from the Start

The key to obtaining correct XML is for the Word file to be correctly structured. In addition to the correct use of Word paragraph and character styles and paragraphs not appearing in "forbidden" locations, certain document elements need to be structured appropriately for the XML to be correct.

eXtyles is designed to identify various sub-elements within certain paragraph styles automatically. This not only saves you time but also reduces the number of styles that your configuration requires. Cases where eXtyles automatically tags content on export are illustrated in the following sections.

Authors and Collaborators

Author Names

The eXtyles Advanced Process for Author Processing will parse paragraphs with author names into their constituent elements (surname, given names, initials, prefixes, and suffixes) as well as identifying organizational authors. eXtyles can also distinguish between various types of contributors (e.g., authors and editors) depending on context in the document.

The author list must be reviewed after running Author Processing to ensure that the various elements have been correctly identified. Certain situations can cause problems for Author Processing in the standard eXtyles configuration: names in non-Western order (i.e., Surname Given-Names); multi-word surnames separated by spaces; unusual or non-standard degree names.

Errors in Author Processing can be corrected by careful hand tagging.

Please be aware that degree names must be explicitly listed in an eXtyles data file. If you find that a degree is not shaded with the correct color, then it's likely that it is not listed in the eXtyles data file and instead eXtyles misapplied the au_orgname character style. When this happens, please fix the character style manually and report the missing degree to eXtyles-support@inera.com.

Introductory text in an author paragraph, such as "By" or "Edited by", must also be styled as au_prefix.

Author Affiliations

Author affiliations can be edited as one affiliation per paragraph, or as multiple affiliations in a single paragraph.

In the "one affiliation per paragraph" style, when superscript letters, numbers, or symbols are used to link affiliations to authors, the linking character must be at the start of the affiliation paragraph.

The following author list and affiliations will parse correctly:

By Robert G. Waltermire[1], Christopher U. Emmerich[2], and Laura C. Mendenhall[3]

[1]U.S. Geological Survey

[2]Cherokee Services Group

[3]U.S. Fish and Wildlife Service

This style makes good use of space if multiple authors share affiliations. The example yields the following XML:

```
<contrib-group content-type="authors">
<contrib contrib-type="author">
<string-name><x>By</x> <given-names>Robert G.</given-names> <surname>Waltermire</surname><
/string-name><xref ref-type="aff" rid="aff1"><sup>1</sup></xref></contrib>
<contrib contrib-type="author">
<string-name><given-names>Christopher U.</given-names> <surname>Emmerich</surname><
/string-name><xref ref-type="aff" rid="aff2"><sup>2</sup></xref></contrib>
<contrib contrib-type="author">
<string-name><given-names>Laura C.</given-names> <surname>Mendenhall</surname></string-
name><xref ref-type="aff" rid="aff3"><sup>3</sup></xref></contrib>
<aff id="aff1"><label>1</label>U.S. Geological Survey</aff>
<aff id="aff2"><label>2</label>Cherokee Services Group</aff>
<aff id="aff3"><label>3</label>U.S. Fish and Wildlife Service</aff>
</contrib-group>
```

Secondary Identification Information

Organizations that made contributions to the content are identified on the title page with the Secondary Identification paragraph style; it is different from the Program Note (see the following section). The following secondary identification information will produce the subsequent XML:

Prepared in cooperation with the Southwest Climate Science Center

```
<contrib-group content-type="collaborator">
<contrib>
<collab>Prepared in cooperation with the Southwest Climate Science Center</collab>
</contrib>
</contrib-group>
```

Program Note Information

A program note is the name of a USGS organizational unit that produced the publication. It is different from the Secondary Identification information, and a document may have both a "program note" and a "prepared in cooperation with" attribution. The following program note will produce the subsequent XML:

National Water-Quality Assessment Project

```
<contrib-group content-type="program-note">
<contrib>
<collab>National Water-Quality Assessment Project</collab>
</contrib>
</contrib-group>
```

Figures, Tables, and Sidebars

It is not necessary to have separate paragraph styles for the number of the figure, table, or box and the rest of the caption. In the XML, eXtyles will automatically separate the number from the rest of the caption paragraph, provided that the display item is referred to by a recognized name (e.g., Figure, Fig., Example, Illustration, Table, Box, Video, etc.) and a consistent character (e.g., period, colon) is used to separate the two parts (i.e., caption and label). Special allowance can be made for captions that span more than one paragraph.

Figures

The following figure caption and its associated variations (see also **Figure Captions and Table Titles**), styled with the FigureCaption paragraph style, will yield the subsequent XML:

FigureCaption	**Figure 2.** ° Late Mississippian to early Permian paleogeographic evolution of the southern Inyo Mountains area. Rectangle denotes area of geologic map; range outlines are the same as on figure 1. ¶
FigCaptionAddtnlPara	Dotted line is trace of Cenozoic Hunter Mountain Fault, on which 10 km of right-lateral displacement has been restored based on the interpretations of Burchfiel and others (1987). See text for discussion of paleogeographic evolution.¶
FigTOCTitle	**Figure 2.** ° Maps showing Late Mississippian to early Permian paleogeographic evolution of the southern Inyo Mountains area.¶
FigAltText	Figure 2. ° Maps showing Late Mississippian to early Permian paleogeographic evolution of the southern Inyo Mountains area, and any additional descriptions of the image for accessibility.¶

```
<fig id="fig02" position="float" fig-type="figure">
<label>Figure 2</label><caption><p>Late Mississippian to early Permian paleogeographic
evolution of the southern Inyo Mountains area. Rectangle denotes area of geologic map;
range outlines are the same as on <xref ref-type="fig" rid="fig01">figure 1</xref>.</p>
<p>Dotted line is trace of Cenozoic Hunter Mountain Fault, on which 10 km of right-
lateral displacement has been restored based on the interpretations of <xref ref-type="
bibr" rid="r6">Burchfiel and others (1987)</xref>. See text for discussion of
paleogeographic evolution.</p>
<p content-type="toc"><bold>Figure 2.</bold>Maps showing Late Mississippian to early
Permian paleogeographic evolution of the southern Inyo Mountains area.</p></caption>
<long-desc>Figure 2.Maps showing Late Mississippian to early Permian paleogeographic
evolution of the southern Inyo Mountains area, and any additional descriptions of the
image for accessibility.</long-desc>
<graphic xlink:href="tac78-18_fig02"/>
</fig>
```

Figure Numbers and the <graphic> Element

In the XML eXtyles will generate a unique ID for each figure in the document, both numbered and unnumbered. It is important that this figure ID in the XML match exactly the file name of the image, which is external to the Word document, so that an automated InDesign layout system can pull in the correct image. As of April 2017, the figure naming conventions for USGS are as follows:

Numbered Figure	tac17-1135_fig01
Unnumbered Figure	tac17-1135_figa

where

tac	a three-letter PSC designation
17	the last two digits of the current fiscal year
11 35	the last four digits of the estimate (job) number of the document
fig	a label indicating that the object is a figure
01	the figure number, in this case, figure 1
a	the letter added to identify unnumbered images; letters are added alphabetically, and then aa, bb, etc., is used for unnumbered figures 27, 28, and so on.

The three-letter PSC designations are as follows:

den	Denver
laf	Lafayette
mad	Madison
men	Menlo Park
pem	Pembroke
res	Reston
rol	Rolla
sac	Sacramento
tac	Tacoma
wtr	West Trenton

The <graphic> Tag

eXtyles will automatically generate unique figure IDs during XML export. The IDs will be placed in a <graphic> tag in the XML that looks like this:

```
<graphic xlink:href="tac17-1135_fig01"/>
```

This tag is then used to pull in and place the correct image during layout.

The information for how these IDs are constructed comes from different places in the document; specifically, the Document Information dialogue and the Word file. The prefix for the ID (tac17-1135) comes from the Object ID Prefix field in the Document Information dialogue (tac17-1135). The figure number (fig01) comes from the figure label in the caption in the Word document (e.g., **Figure 1**. Caption text).

Figure Caption Location in the Word File

Figure captions must be located just after the paragraph where each figure is first cited. If captions have been collected at the end of the document, they will need to be moved to the proper place within the document before you export to XML.

Similarly, in the case of unnumbered figures, the caption must be placed in the Word file just after the paragraph where the figure should appear in the PDF file or HTML page.

Tables

All tables, or content styled with the Table elements of the paragraph styles palette, must be in Word table format. Otherwise, export is likely to produce parsing errors. All content for each table should be in a single Word table. Splitting content for a single table across multiple Word tables will likely result in incorrect XML and may result in parsing errors.

Tables will be exported to XHTML format in the XML file. We recommend using the XHTML table model, because it has stronger support for borders and shading.

The more formatting you set correctly in Word, the more that formatting will be correctly reflected in the XML (cell alignment, column widths, cell borders, cell shading). Note that eXtyles supports the use of the decimal tab in Word tables, as well as left- and right-aligned and centered content.

Table Formatting Example

This relatively simple table has been set up with the following formatting options in Word:

- column headings are centered
- the contents of columns 1-4 are left aligned
- column 5 is aligned on a decimal tab
- column 6 is left aligned
- row 2 has grey shading applied

Note that the cells in the top row carry the TableHead style, while the other rows are styled as TableBody.

Site	PID	Latitude (N)	Longitude (W)	Average error (m)	Survey methodology
Mad River	LV0346	40° 51' 54"	124° 09' 00"	0.002	Base Station
San Pablo	JT0321	38° 06' 26"	122° 17' 13"	0.03	RTK Network

Bolinas	BOLYBAY01*	37° 55' 50"	122° 41' 20"	0.001	Base Station
Morro	FV1099	35° 22' 02"	120° 50' 02"	0.01	Base Station
Pt. Mugu	EW6523	34° 07' 00"	119° 05' 08"	0.06	RTK Network
Newport	AD9435	33° 39' 52"	117° 52' 31"	0.01	RTK Network
Tijuana	B899	32° 35' 38''	117° 07' 21''	0.04	Base Station

This yields the following XML. Notice the attribute `align="center"` for the column heads and `align="left"` for the other columns. For the decimal-aligned content, the formatting is preserved with the attribute `align="char"`. Shading is indicated with the rgb values, which are captured in the style attribute, `style="background-color:rgb(174,170,170)"`.

```
<table-wrap id="t01" position="float">
<table rules="groups">
<col width="12.69%"/>
<col width="17.43%"/>
<col width="14.05%"/>
<col width="15.5%"/>
<col width="18.72%"/>
<col width="21.61%"/>
<thead>
<tr>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">Site</td>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">PID</td>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">Latitude (N)</td>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">Longitude (W)</td>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">Average error (m)</td>
<td valign="top" align="center" scope="col" style="border-top: solid 0.50pt; border-
bottom: solid 0.50pt">Survey methodology</td>
</tr>
</thead>
<tbody>
<tr>
<td valign="top" align="left" style="border-top: solid 0.50pt" scope="row">Mad River</td>
<td valign="top" align="left" style="border-top: solid 0.50pt">LV0346</td>
<td valign="top" align="left" style="border-top: solid 0.50pt">40° 51' 54"</td>
<td valign="top" align="left" style="border-top: solid 0.50pt">124° 09' 00"</td>
<td valign="top" align="char" char="." style="border-top: solid 0.50pt">0.002</td>
<td valign="top" align="left" style="border-top: solid 0.50pt">Base Station</td>
</tr>
<tr>
<td valign="top" align="left" style="background-color:rgb(174,170,170)" scope="row">San
Pablo</td>
<td valign="top" align="left" style="background-color:rgb(174,170,170)">JT0321</td>
<td valign="top" align="left" style="background-color:rgb(174,170,170)">38° 06' 26"</td>
<td valign="top" align="left" style="background-color:rgb(174,170,170)">122° 17' 13"</td>
<td valign="top" align="char" char="." style="background-color:rgb(174,170,170)">0.03</td>
<td valign="top" align="left" style="background-color:rgb(174,170,170)">RTK Network</td>
</tr>
<tr>
<td valign="top" align="left" scope="row">Bolinas</td>
<td valign="top" align="left">BOLYBAY01*</td>
<td valign="top" align="left">37° 55' 50"</td>
<td valign="top" align="left">122° 41' 20"</td>
<td valign="top" align="char" char=".">0.001</td>
<td valign="top" align="left">Base Station</td>
</tr>
```

```
<tr>
<td valign="top" align="left" scope="row">Morro</td>
<td valign="top" align="left">FV1099</td>
<td valign="top" align="left">35° 22' 02"</td>
<td valign="top" align="left">120° 50' 02"</td>
<td valign="top" align="char" char=".">0.01</td>
<td valign="top" align="left">Base Station</td>
</tr>
<tr>
<td valign="top" align="left" scope="row">Pt. Mugu</td>
<td valign="top" align="left">EW6523</td>
<td valign="top" align="left">34° 07' 00"</td>
<td valign="top" align="left">119° 05' 08"</td>
<td valign="top" align="char" char=".">0.06</td>
<td valign="top" align="left">RTK Network</td>
</tr>
<tr>
<td valign="top" align="left" scope="row">Newport</td>
<td valign="top" align="left">AD9435</td>
<td valign="top" align="left">33° 39' 52"</td>
<td valign="top" align="left">117° 52' 31"</td>
<td valign="top" align="char" char=".">0.01</td>
<td valign="top" align="left">RTK Network</td>
</tr>
<tr>
<td valign="top" align="left" style="border-bottom: solid 0.50pt" scope="row">Tijuana</td>
<td valign="top" align="left" style="border-bottom: solid 0.50pt">B899</td>
<td valign="top" align="left" style="border-bottom: solid 0.50pt">32° 35' 38''</td>
<td valign="top" align="left" style="border-bottom: solid 0.50pt">117° 07' 21''</td>
<td valign="top" align="char" char="." style="border-bottom: solid 0.50pt">0.04</td>
<td valign="top" align="left" style="border-bottom: solid 0.50pt">Base Station</td>
</tr>
</tbody></table></table-wrap>
```

Table Locations in the Word File

Numbered tables can be located in the Word file either just after the paragraph where the table is first cited or collected at the end of the document (which may be useful placement for very large tables). Numbered tables that have been collected at the end of the document will be moved by the eXtyles export process to their proper place in the XML (immediately after the paragraph in which the table is first cited).

In the case of unnumbered and/or uncited tables, the table must be placed in the Word file just after the paragraph where it should appear in the PDF file or HTML page.

> ⚠ **Note**
> If a numbered table is not cited in the text or has not been successfully color coded during eXtyles citation matching, the export process will not know where to place the table in the XML. Because of this, you may get a parsing error if you have placed a numbered table at the end of the Word document and have not correctly cited it in the body of the document.

Retaining Tables/Figures at the End of the Document

At times, it may be preferred to place long tables at the end of the document even though they are cited in the body. Because during XML export eXtyles will automatically move tables to the spot of their first citation (in the XML), an override will need to be used to prevent this default behavior. The **cite_tbl_nomove** character style can be used to ensure that tables that need to remain at the end of the document are not moved to where they are cited in the body.

This character style is not automatically applied by eXtyles Advanced Processes (such as Citation Matching), and so it will need to be hand-applied when necessary. To do this, simply open the Word style pane (not the eXtyles style palette), locate the cite_tbl_nomove character style, highlight the table citation in the text, and apply the style. The character style will need to be applied to every citation to the table, not just the first one.

There is also a **cite_fig_nomove** character style that can be used to achieve the same behavior for figures.

Sidebars

Sidebar content must be carefully styled in the Word document so that correct XML can be exported. Sidebar content can span one or more pages and can contains images, lists, display quotes, or other types of content. It can also be only a few paragraphs long and may include only a header and text paragraphs.

It is critical that the correct styles from the eXtyles palette be used to properly style sidebar content so that correct XML will be exported (see also the section **USGS Styles**). Because sidebars can contain a variety of content (e.g., lists, display quotes, headings), and to avoid cluttering the style palette with a library of sidebar-specific paragraph styles, eXtyles uses "begin" and "end" styles to mark the start and end of the sidebar. This allows you to use, with few exceptions, regular text paragraph styles within the sidebar and still get correct XML.

The following sample of sidebar text shows the proper use of styles. This sidebar includes a title, a first-level heading, body text, a numbered list, and a figure caption.

> ⚠️ **Note**
>
> Although USGS commonly refers to such content as Sidebars, the BITS DTD against which the XML is being validated during XML export uses the tag name <box>; thus, in the eXtyles workflow, the labels "box" and "sidebar" are effectively synonymous, which is also why you may see both terms used in the Word paragraph styles.

BoxBegin	[[Begin Feature Box 4]]
SidebarTitle	**Box 4 Other Hosts of Adult *Baylisascaris procyonis***
BoxHead1	**Other Procyonids**
Sidebar	As a group, members of the **taxonomic** family Procyonidae (procyonids) are relatively small, **omnivorous** mammals, including raccoons, coatis, **ringtails, cacomistles**, kinkajous, and olingos (*A*).
Num_Bul_List_1	1. Like the raccoon, most other procyonids have distinct masklike facial markings and banded tails.
Num_Bul_List_1	2. The primary definitive host of *B. procyonis* is the common raccoon.
Sidebar	The extent of cross infectivity of *B. procyonis* for other procyonids and the exact species involved in some cases of infection remain to be determined by molecular and other methods.
FigureCaption	*A.* 1. Crab-eating raccoon (Photo by Steven G. Johnson), 2. Cozumel raccoon (Photo by Camazine).
Sidebar	**Patent** intestinal infections with *Baylisascaris* sp. have been documented multiple times in kinkajous, one captured in Colombia, South America (Overstreet, 1970).
BoxEnd	[[End Feature Box 4]]

Note the use of the sidebar start and end paragraphs (i.e., Begin Feature Box 4 and End Feature Box 4), which are required so that eXtyles knows what content should be included in the sidebar. If the sidebar has a title, as this one does, the Sidebar Title paragraph style should be used. Likewise, if the sidebar has subheadings (in this example, the first-level head "Other Procyonids") the Box Head styles on the Back tab of the eXtyles style palette should be used, and Sidebar Text should be used for the sidebar body.

All other content type should be styled with the same paragraph styles used to style the rest of the document. This sample yields the following XML.

Sidebar XML sample

```
<boxed-text id="b04">
<label>Box 4</label><caption><title>Other Hosts of Adult <italic>Baylisascaris procyonis<
/italic></title></caption>
<sec>
<title>Other Procyonids</title>
<p>As a group, members of the <bold>taxonomic</bold> family Procyonidae (procyonids) are
relatively small, <bold>omnivorous</bold> mammals, including raccoons, coatis,
<bold>ringtails, cacomistles</bold>, kinkajous, and olingos (<italic>A</italic>). </p>
<list id="L2" list-type="order">
<list-item><label>1</label>Like the raccoon, most other procyonids have distinct masklike
facial markings and banded tails.</list-item>
<list-item><label>2</label><p>The primary definitive host of <italic>B. procyonis<
```

```
/italic> is the common raccoon.</p></list-item></list>
<p>The extent of cross infectivity of <italic>B. procyonis</italic> for other procyonids
and the exact species involved in some cases of infection remain to be determined by
molecular and other methods.</p>
<fig id="figa" position="float" fig-type="figure"><caption><p><italic>A</italic>. 1. Crab-
eating raccoon (Photo by Steven G. Johnson), 2. Cozumel raccoon (Photo by Camazine).</p><
/caption><graphic xlink:href="ofr2015_figa"/></fig>
<p><bold>Patent</bold> intestinal infections with <italic>Baylisascaris</italic> sp. have
been documented multiple times in kinkajous, one captured in Colombia, South America
(<xref ref-type="bibr" rid="r-2-251">Overstreet, 1970</xref>).</p>
</sec>
</boxed-text>
```

Sidebar Locations in the Word File

Similar to tables and figures, if possible sidebar content should be placed in the Word document near where it is intended to be positioned in the PDF or HTML. This will ensure that is correctly placed during layout.

However, some sidebar content can be several pages long, and it would be disruptive to place it in the body of the document. These long sidebars can be collected at the end of the Word document to avoid such disruption of the narrative. However, if sidebars are collected at the end of the document the following steps must be followed, in order, to ensure proper XML export.

1. **Placement instructions must be added** to the body, indicating where the sidebar, or sidebars, should be placed during layout (see also the section **USGS Styles**).

For this instruction, use the paragraph style Sidebar Layout Instruction from the Body tab of the eXtyles style palette, as in the following example:

LayoutBoxInstruct | Insert·Feature·Box·4·"Other·hosts·of·adult·*Baylisascaris·procyonis*"·near·here.¶
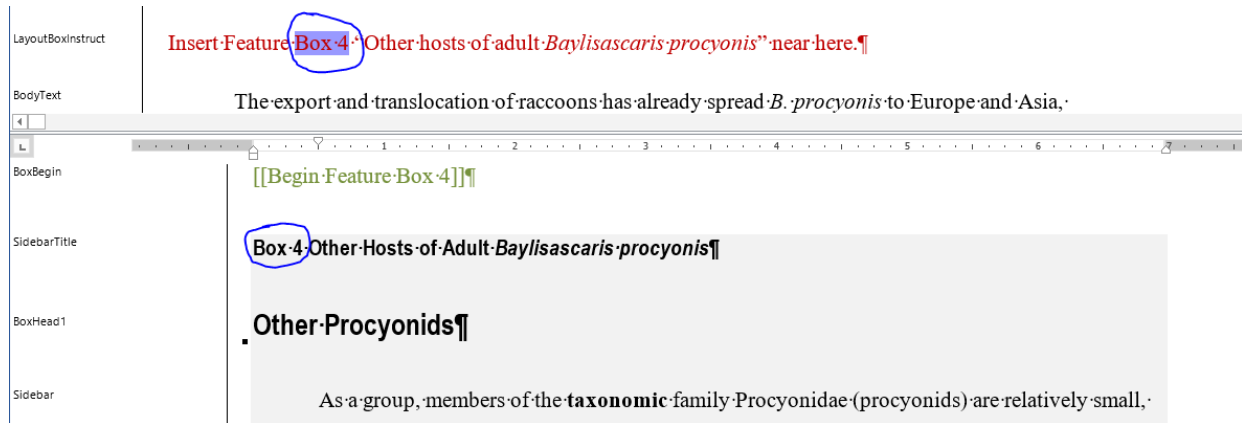
2. **Sidebars must be numbered** so that eXtyles can identify where to place the content in the XML (see the section "Sidebar Numbering" for more detailed information).

3. **Citation Matching must be run** and all warnings addressed before XML export. Successful citation matching will result in the lavendar-shaded cite_box character style being applied to the Sidebar Layout Instruction for each sidebar, as shown in step 1.

Sidebar Numbering

Sidebar Layout Instructions indicate the correct placement of sidebars that are positioned at the end of the Word document for ease of editing. In the XML that eXtyles generates, the sidebar content will be moved from the end of the document to its correct position based on the layout instructions. But during XML export, how does eXtyles know where to place the sidebar and where to place specific sidebars if there are more than one in a document?

In these cases, eXtyles will rely on the links that are generated during Citation Matching, and Citation Matching can only generate links if there is a matching numbered label in both the layout instruction and the sidebar title. For example:

LayoutBoxInstruct	Insert·Feature·Box·4·"·Other·hosts·of·adult·*Baylisascaris·procyonis*"·near·here.¶
BodyText	The·export·and·translocation·of·raccoons·has·already·spread·*B.·procyonis*·to·Europe·and·Asia,·
BoxBegin	[[Begin·Feature·Box·4]]¶
SidebarTitle	**Box·4**·Other·Hosts·of·Adult·*Baylisascaris·procyonis*¶
BoxHead1	**Other·Procyonids**¶
Sidebar	As·a·group,·members·of·the·**taxonomic**·family·Procyonidae·(procyonids)·are·relatively·small,·

Then, during XML export, eXtyles will move the sidebar content to the spot in the body indicated by the layout instruction.

Unnumbered Sidebars

Sidebars placed at the end of the Word document in this way must have an associated number and label to produce correct XML. So, how should sidebars that are not numbered (i.e., just the title will appear in the PDF) be formatted in the Word document? Two options exist for unnumbered sidebars:

1. Assign a temporary number to the sidebars that are placed at the end of the Word document to facilitate Citation Matching and proper placement of the sidebar during XML export.

2. Place the sidebars in the body of the Word document near where they should appear in the PDF.

Option 1 is recommended if the document contains numerous long sidebars that would be disruptive to include in the body. In this scenario, however, the temporary number would be present in the XML; for example,

```
<boxed-text id="b04">
<label>Box 4</label><caption><title>Other Hosts of Adult <italic>Baylisascaris procyonis<
/italic></title></caption>
<sec>
<title>Other Procyonids</title>
<p>As a group, members of the…</p>
</sec>
</boxed-text>
```

The "Box 4" label content can then be manually removed from the PDF.

Option 2 is recommended if the sidebars are short and can easily be placed in the document body without being disruptive. In that case, no numbering is required, and the XML would look like this:

```
<boxed-text id="bd">
<caption><title>Other Hosts of Adult <italic>Baylisascaris procyonis</italic></title><
/caption>
<sec>
<title>Other Procyonids</title>
<p>As a group, members of the…</p>
</sec>
</boxed-text>
```

Footnotes

eXtyles can easily handle simple footnotes that are a single paragraph of text. If you have a document with complex footnotes (e.g., footnotes that are multiple paragraphs, are broken by display text such as an equation), reach out to eXtyles-support@inera.com for guidance.

Example

The following footnote:

> * Some variables, such as measures of income inequality and degree of financial openness, are not included in our study because of the limited availability of good-quality data across countries over the sample period.

will produce this XML:

```
<fn id="FN1">
<label>*</label>
<p>Some variables, such as measures of income inequality and degree of financial
openness, are not included in our study because of the limited availability of good-
quality data across countries over the sample period.</p>
</fn>
```

Hyperlinks

In a standard eXtyles configuration, URLs in the Word file will be exported automatically as hyperlinks in the XML; for example, the URL **http://www.inera.com** will produce the following XML:

```
<ext-link ext-link-type="uri" xlink:href="http://www.inera.com">http://www.inera.com</ext-
link>
```

By default, eXtyles Cleanup is set up to "flatten" any hyperlinks in the text so that the text that is displayed matches the URL that the hyperlink points to. This is generally the desired behavior for content that will appear in print (so that the reader of the print version can see the URL target).

For electronic-only content, the text that is displayed for the hyperlink can be different from the URL that the hyperlink points to; for example, the hyperlinked text "Inera website" will produce the following XML:

```
<ext-link ext-link-type="uri" xlink:href="http://www.inera.com">Inera website</ext-link>
```

Lists

In a standard eXtyles configuration, a group of contiguous list paragraphs will be exported as a single XML list. Nested lists should be styled carefully to ensure that the nesting is reflected in the paragraph styles used.

Numbered and Bulleted Lists

Numbered and bulleted lists take the same paragraph style, and the label (e.g., the number or bullet) determines how the list is defined in the XML. For example, the following bulleted list, styled with the Numbered/Bullet List Level 1 paragraph style, will produce the subsequent XML.

- Incorporation of marsh migration processes into coastal modeling

- Additional research on processes inherent in marsh accretion potential, including organic matter contributions to soils and suspended sediment availability

- Understanding changes in marsh function due to SLR including vegetation responses to inundation and wildlife use of marsh habitats

```
<list id="L1" list-type="bullet">
<list-item><label>&#x2022;</label><p>Incorporation of marsh migration processes into
coastal modeling</p></list-item>
<list-item><label>&#x2022;</label><p>Additional research on processes inherent in marsh
accretion potential, including organic matter contributions to soils and suspended
sediment availability</p></list-item>
<list-item><label>&#x2022;</label><p>Understanding changes in marsh function due to SLR
including vegetation responses to inundation and wildlife use of marsh habitats</p></list-
item></list>
```

Note that in the XML the list type has been defined as "bullet," and the bullet symbols (represented with their Unicode value •) are provided within <label> tags.

Numbered lists, such as the following, produce the subsequent XML:

1. Incorporation of marsh migration processes into coastal modeling

2. Additional research on processes inherent in marsh accretion potential, including organic matter contributions to soils and suspended sediment availability

3. Understanding changes in marsh function due to SLR including vegetation responses to inundation and wildlife use of marsh habitats

```
<list id="L1" list-type="order">
<list-item><label>1</label><p>Incorporation of marsh migration processes into coastal
modeling</p></list-item>
<list-item><label>2</label><p>Additional research on processes inherent in marsh
accretion potential, including organic matter contributions to soils and suspended
sediment availability</p></list-item>
<list-item><label>3</label><p>Understanding changes in marsh function due to SLR
including vegetation responses to inundation and wildlife use of marsh habitats</p></list-
item></list>
```

Note that in the XML the list type for numbered lists is "order," and the numbers are enclosed in <label> tags.

Lists that are neither bulleted nor numbered should take the Unnumbered List paragraph style. The following unnumbered list will produce the subsequent XML:

Incorporation of marsh migration processes into coastal modeling

Additional research on processes inherent in marsh accretion potential, including organic matter contributions to soils and suspended sediment availability

Understanding changes in marsh function due to SLR including vegetation responses to inundation and wildlife use of marsh habitats

```
<list id="L1" list-type="simple">
<list-item><p>Incorporation of marsh migration processes into coastal modeling</p></list-
item>
<list-item><p>Additional research on processes inherent in marsh accretion potential,
including organic matter contributions to soils and suspended sediment availability</p><
/list-item>
<list-item><p>Understanding changes in marsh function due to SLR including vegetation
responses to inundation and wildlife use of marsh habitats</p></list-item></list>
```

Note that in the XML the list type for unnumbered lists is "simple," and there are no <label> tags.

If a single item in the list is made up of more than one paragraph, a List Continued style must be used for the continuation paragraphs; otherwise, the subsequent paragraphs will be exported as separate list items. Following is an example of the use of List Continued and it's resulting XML:

1. Incorporation of marsh migration processes into coastal modeling

> Additional research on processes inherent in marsh accretion potential, including organic matter contributions to soils and suspended sediment availability

2. Understanding changes in marsh function due to SLR including vegetation responses to inundation and wildlife use of marsh habitats

```
<list id="L1" list-type="order">
<list-item><label>1</label><p>Incorporation of marsh migration processes into coastal
modeling</p>
<p>Additional research on processes inherent in marsh accretion potential, including
organic matter contributions to soils and suspended sediment availability</p></list-item>
<list-item><label>2</label><p>Understanding changes in marsh function due to SLR
including vegetation responses to inundation and wildlife use of marsh habitats</p></list-
item></list>
```

⚠️ **Note**

> If it is necessary to interrupt a list with a non-list paragraph, such as a quote, and then continue the list, you will need a specific paragraph style (e.g., Quote in List) to allow that paragraph to appear in the list without causing the list to end in the XML file and to restart after the interposed paragraph.

Lists in Tables

Lists in tables should be styled using the appropriate list style, rather than using the table styles. You can apply the list style to a unique paragraph in a table cell by holding the **Ctrl** key while selecting the style from the palette. For example, the following table uses a Table Body style for the regular cell content and the appropriate List styles for the list content:

Table header	Table header	Table header
Table body	Table body	1. Numbered/Bullet List Level 1
	• Numbered/Bullet List Level 1	2. Numbered/Bullet List Level 1
	• Numbered/Bullet List Level 1	3. Numbered/Bullet List Level 1

Using list styles in this way will produce the following XML for the first row of the above table (note the <list-item> tagging for the third column):

```
<tr>
<td rowspan="3" valign="top" align="left" style="border-top: solid 0.50pt; border-bottom:
solid 0.50pt" scope="row">Table body</td>
<td valign="top" align="left" style="border-top: solid 0.50pt">Table body</td>
<td valign="top" align="left" style="border-top: solid 0.50pt"><list id="L1" list-type="
order"><list-item><label>1</label><p>Numbered/Bullet List Level 1</p></list-item></list>
</td>
</tr>
```

Lists with Terms and Definitions: Abbreviations, Glossary, Equation Where List, and DMU

eXtyles will automatically parse certain list types (e.g., abbreviations and glossary paragraphs) to XML definition lists, according to certain standard editorial styles. In particular, these types of lists must be segmented consistently into their various elements.

> ⚠ **Note**
> The Definitions Title and Definitions List Item paragraph styles should be used for any section that contains terms and definitions. This includes Abbreviations, Glossary, List of Terms, and so on. See **USGS Styles** for more information about how to use styles.

Abbreviations

For the purposes of eXtyles, an "Abbreviations" paragraph is a list of two or more term–definition pairs in a single paragraph.

For parsing of abbreviations, eXtyles uses strong and weak characters in turn to attempt to separate the paragraph into its elements. The strong characters are tabs, (semi)colons, and em dashes. Weak characters are en dashes and commas. Consistent use of strong separator characters is crucial to obtaining accurate XML.

Examples of Abbreviations paragraphs that will yield correct XML include:

CERCC program: Coastal Ecosystem Response to Climate Change program

GPS: Global Positioning System

DEM: digital elevation model

HOWL: highest observed water level

LCCs: Landscape Conservation Cooperatives

MHW: mean high water

MHHW: mean higher high water

MLLW: mean lower low water

MTL: mean tide level

This list yields the following XML:

Abbreviations XML Sample

```
<glossary content-type="Abbreviations">
<title>Abbreviations</title>
<def-list>
<def-item><term>CERCC program</term><def><p>Coastal Ecosystem Response to Climate Change
program</p></def></def-item>
<def-item><term>GPS</term><def><p>Global Positioning System</p></def></def-item>
<def-item><term>DEM</term><def><p>digital elevation model</p></def></def-item>
<def-item><term>HOWL</term><def><p>highest observed water level</p></def></def-item>
<def-item><term>LCCs</term><def><p>Landscape Conservation Cooperatives</p></def></def-
item>
<def-item><term>MHW</term><def><p>mean high water</p></def></def-item>
<def-item><term>MHHW</term><def><p>mean higher high water</p></def></def-item>
<def-item><term>MLLW</term><def><p>mean lower low water</p></def></def-item>
<def-item><term>MTL</term><def><p>mean tide level</p></def></def-item>
</def-list>
</glossary>
```

The characters that are used to separate the abbreviation and definition and the abbreviation–definition pairs generally cannot be used within an abbreviation or definition. For example, the following abbreviation would not be parsed correctly because a comma both separates the term from the definition and appears in the definition itself:

ExPEC, extra-intestinal, pathogenic Escherichia coli

Glossary

For the purposes of eXtyles, a "Glossary" is a multi-paragraph list with one term–definition pair per paragraph. As with abbreviations, consistent use of a strong separator character is crucial to obtaining accurate XML.

The following paragraphs will parse to give correct XML:

1. Term in bold

CERCC program Coastal Ecosystem Response to Climate Change program

GPS Global Positioning System

DEM digital elevation model

HOWL highest observed water level

2. Tab separating term and definition

CERCC program   Coastal Ecosystem Response to Climate Change program

GPS   Global Positioning System

DEM   digital elevation model

HOWL   highest observed water level

3. Colon, equal sign, or other "strong" separator separating term and definition

CERCC program: Coastal Ecosystem Response to Climate Change program

GPS: Global Positioning System

DEM: digital elevation model

HOWL: highest observed water level

These various styles each yield the following XML:

Glossary XML Sample

```
<glossary content-type="Glossary">
<title>Glossary</title>
<def-list>
<def-item><term>CERCC program</term><def><p>Coastal Ecosystem Response to Climate Change
program</p></def></def-item>
<def-item><term>GPS</term><def><p>Global Positioning System</p></def></def-item>
<def-item><term>DEM</term><def><p>digital elevation model</p></def></def-item>
<def-item><term>HOWL</term><def><p>highest observed water level</p></def></def-item>
<def-item><term>LCCs</term><def><p>Landscape Conservation Cooperatives</p></def></def-
item>
<def-item><term>MHW</term><def><p>mean high water</p></def></def-item>
<def-item><term>MHHW</term><def><p>mean higher high water</p></def></def-item>
<def-item><term>MLLW</term><def><p>mean lower low water</p></def></def-item>
<def-item><term>MTL</term><def><p>mean tide level</p></def></def-item>
</def-list>
</glossary>
```

Equation Where List

Equation Where Lists (or, the definitions of variables that follow a formula, typically preceded by the word "where") are likewise parsed into <term> and <def> elements in the XML when the content in Word is styled correctly. Similar to Abbreviations and Glossary, eXtyles uses strong and weak characters in turn to attempt to separate the paragraph into its elements. The strong characters are tabs, (semi)colons, and em dashes. Weak characters are en dashes and commas. Consistent use of strong separator characters is crucial to obtaining accurate XML.

Using the paragraph style EquationDefList, the following content will produce the sample XML (note: only the where list is provided in the sample):

$LOAD = MAC * GMQ * K$ (1)

where

LOAD   is the estimated normalized constituent load (in kilograms per day) for the indicated 5-year period;

MAC   is the mean annual fitted trend FAC (in micrograms per liter for trace elements or milligrams per liter for suspended sediment) for the indicated 5-year period;

GMQ   is the geometric mean of daily mean streamflow for water years 1996–2015, in cubic feet per second; and

K   is a units conversion constant (0.00245 for concentrations in micrograms per liter or 2.45 for concentrations in milligrams per liter) to convert instantaneous constituent discharge (in mass units per second) to an equivalent daily constituent load (in kilograms per day).

Equation Where List XML Sample

```
<disp-formula id="e01"><alternatives><mml:math id="m1">....</mml:math><graphic position="anchor" xlink:href="tac16-1008_m01"/></alternatives><label>(1)</label></disp-formula>where</p>
<def-list list-type="equation-where">
<def-item><term><italic>LOAD</italic></term><def><p>is the estimated normalized constituent load (in kilograms per day) for the indicated 5-year period;</p></def></def-item>
<def-item><term><italic>MAC</italic></term><def><p>is the mean annual fitted trend FAC (in micrograms per liter for trace elements or milligrams per liter for suspended sediment) for the indicated 5-year period;</p></def></def-item>
<def-item><term><italic>GMQ</italic></term><def><p>is the geometric mean of daily mean streamflow for water years 1996–2015, in cubic feet per second; and</p></def></def-item>
<def-item><term><italic>K</italic></term><def><p>is a units conversion constant (0.00245 for concentrations in micrograms per liter or 2.45 for concentrations in milligrams per liter) to convert instantaneous constituent discharge (in mass units per second) to an equivalent daily constituent load (in kilograms per day).</p></def></def-item>
</def-list>
```

Description of Map Units

Description of Map Units (DMU) sections can be more complex than abbreviations or glossaries; for example, they can include subheadings and citations. Because of this, be sure to use the correct DMU paragraph styles, as described in the USGS Styles, De scription of Map Units section of this User Guide.

As with abbreviations and glossaries, consistent use of a strong separator character is crucial to obtaining accurate XML. For example, the following text will yield the subsequent XML:

DESCRIPTION OF MAP UNITS

Qa

Alluvium and floodplain deposits (Quaternary)—Clay, silt, sand, and gravel underlying floodplains along most streams; composed of well-bedded to crudely-bedded, light-olive-gray (5Y 5/2), yellowish-gray (5Y 7/2), and pale-yellowish-orange (10YR 8 /6) to dark-yellowish-orange (10YR 6/6) sand and silty clay. Pebble-size (4-64 mm) fragments of sandstone, siltstone, quartzite and weathered shale are scattered throughout. Thickness ranges up to 20 ft (6 m)

Helderberg Group, excluding the Keyser Limestone (Lower Devonian) (Conrad 1839)—The upper Helderberg Group units in Frederick County were mapped by Butts and Edmundson (1966) to include the Coeymans and New Scotland Limestones (Clarke and Schuchert, 1899).

DMU XML Sample

```
<glossary content-type="DESCRIPTION-OF-MAP-UNITS">
<title>DESCRIPTION OF MAP UNITS</title>
<glossary content-type="a">
<title><styled-content style-type="normal"><private-char name="Quaternary" description="
FGDCGeoAge"/></styled-content>a</title>
<def-list>
<def-item><term>Alluvium and floodplain deposits (Quaternary)</term><def><p>Clay, silt,
sand, and gravel underlying floodplains along most streams; composed of well-bedded to
crudely-bedded, light-olive-gray (5Y 5/2), yellowish-gray (5Y 7/2), and pale-yellowish-
orange (10YR 8/6) to dark-yellowish-orange (10YR 6/6) sand and silty clay. Pebble-size (4-
64 mm) fragments of sandstone, siltstone, quartzite and weathered shale are scattered
throughout. Thickness ranges up to 20 ft (6 m)</p></def></def-item>
<def-item><term>Helderberg Group, excluding the Keyser Limestone (Lower Devonian) (Conrad
1839)</term><def><p>The upper Helderberg Group units in Frederick County were mapped by
<xref rid="r2" ref-type="bibr">Butts and Edmundson (1966)</xref> to include the Coeymans
and New Scotland Limestones (<xref rid="r4" ref-type="bibr">Clarke and Schuchert, 1899<
/xref>).</p></def></def-item>
</def-list>
</glossary>
</glossary>
```

Math and Formulas

The BITS DTD allows math to be encoded in a number of ways: as MathML, as a pointer to an image file, or as a combination of the two. The USGS export takes advantage of both options (MathML and an image file) to ensure both full compliance with accessibility and machine-readability requirements (MathML) and correct display of the formula regardless of platform (image). Users also have the option of using the Math character style in order to indicate inline Math that is not MathType.

> ✅ **Tip**
> To ensure consistent and correct XML, it is strongly recommended that all formulas and math inserted into the Word document with a math editor be converted to MathType prior to export.

MathML

eXtyles will easily and correctly produce MathML during XML export when formulas in the Word document are formatted as MathType equations (see **Terms and Definitions** for information about how to format Equation Where Lists). The following MathType equation will yield the subsequent MathML:

$$M = \frac{v_R^2 + U_{orb}^2}{(s-1)gD_{50}} \quad (19)$$

Math XML Sample

```
<disp-formula id="e19"><alternatives><mml:math id="m19">
 <mml:mrow>
  <mml:mi>M</mml:mi><mml:mo>=</mml:mo><mml:mfrac>
   <mml:mrow>
    <mml:msubsup>
     <mml:mi>v</mml:mi>
     <mml:mi>R</mml:mi>
     <mml:mn>2</mml:mn>
    </mml:msubsup>
    <mml:mo>+</mml:mo><mml:msubsup>
     <mml:mi>U</mml:mi>
     <mml:mrow>
      <mml:mi>o</mml:mi><mml:mi>r</mml:mi><mml:mi>b</mml:mi>
     </mml:mrow>
     <mml:mn>2</mml:mn>
    </mml:msubsup>
   </mml:mrow>
   <mml:mrow>
    <mml:mrow><mml:mo>(</mml:mo>
     <mml:mrow>
      <mml:mi>s</mml:mi><mml:mo>-</mml:mo><mml:mn>1</mml:mn>
     </mml:mrow>
    <mml:mo>)</mml:mo></mml:mrow><mml:mi>g</mml:mi><mml:msub>
     <mml:mi>D</mml:mi>
     <mml:mrow>
      <mml:mn>50</mml:mn>
     </mml:mrow>
    </mml:msub>
   </mml:mrow>
  </mml:mfrac>
 </mml:mrow>
</mml:math><graphic position="anchor" xlink:href="tcm17-1008_m19"/></alternatives><label>
(19)</label></disp-formula>
```

Images

For the same formula, eXtyles will also create an .eps file, and will save it into the same directory as the Word file. This .eps file will be named according to the Object ID value entered into the Document Information dialogue and the number of the formula. In the above example, the .eps file that is generated is named: tcm17-1008_m19.eps.

In the XML, eXtyles adds a pointer to this .eps file so that it can be used for display purposes (e.g., during the typesetting process or for display on the Internet). This pointer takes the form of a `<graphic>` tag; in this example, `<graphic position="anchor" xlink:href="tcm17-1008_m19"/>`.

Math Character Style

In cases where math is used inline with body text, and mathType is not used, apply the character style "Math".This character style can be manually applied to inline math that is plain text (not MathType).
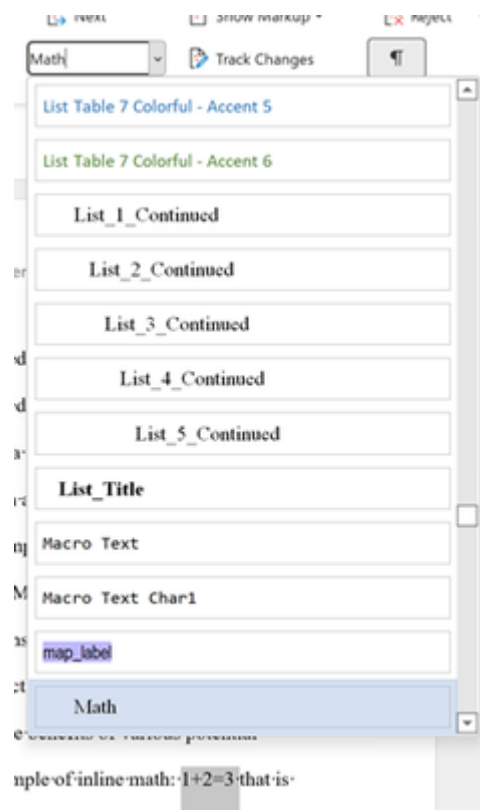

The resulting XML will appear as follows:

> **XML**
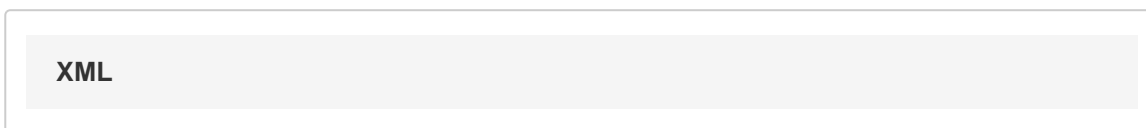
Problems with Math in XML

Commonly encountered problems with the correct export of math include:

1. **Equations are not actually math objects.** If equations have been inserted into the text as objects other than MathType (for example, as pictures), they will not be exported as math. Depending on your eXtyles configuration, they will be exported as inline graphics or they will be dropped entirely from the XML file.

A common reason for equations appearing as images in the Word file is if a Word 2007/2010 DOCX file containing Word
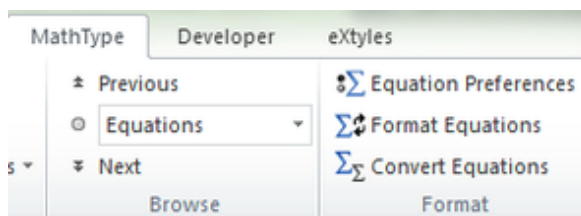
Equation Builder objects has been saved as a Word 2003 DOC file. Because the Equation Builder is not backward compatible with Word 2003, the equations are saved as images instead. To avoid this problem, Equation Builder objects should be converted to MathType equations using the Convert Equations function (see the figure to the right) on the MathType menu/ribbon before saving the file to DOC format from DOCX.
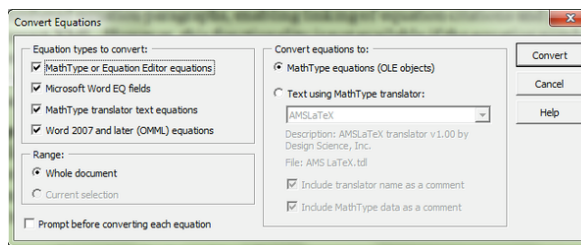
Note that "Word 2007 and later (OMML) equations" must be selected under "Equation types to convert,"and "Convert equations to" must be set to "MathType equations (OLE objects)."

If an author has saved a file containing Equation Builder math as a DOC file without first converting the equations, these equations may be recovered by re-saving the file in DOCX format using Word 2007 or 2010 (Microsoft calls this process "rehydration"). After resaving the file, you should reconfirm that the equations are now editable Equation Builder objects. At this stage, we recommend you convert the equations to MathType using the instructions given earlier.

2. **Equation numbers included as part of the equation.** eXtyles will automatically parse numbered equation paragraphs, enabling linking of equation citations and generating correct XML. However, this functionality is not available if the equation numbers have been added as part of the equation object itself. The equation numbers must be removed from the equation objects and added as text to the paragraph containing the equation (see the previous example).

Version History

You may need to include Version History information in a document. This information should be added to the start of the document, after the author information. For example,

In this Word sample, the Version Date and Version Description are added immediately after the author affiliation. There can be multiple lines of Version Date and Version Description, but the Version Description (if present) should always immediately follow its Version Date.

When Late-Stage Auto-Redact is run, the month, day (if present), year, and version number in the Version Date line are styled with unique character styles. These character styles will then map to specific markup in the XML that is required for Typefi to correctly set the content.

```
<event>
<pub-date>
<string-date>Revised and reposted <month>July</month> <year>2017</year> as version <named-
content content-type="revision-version">1.2</named-content></string-date>
</pub-date>
<notes>
<p>In response to comments from students, the author has clarified the explanations,
fixed typographical errors, or made minor wording changes on 54 pages of the 346 pages in
the report. The number of pages and the page sequence remain the same.</p>
</notes>
</event>
```

Section Cross References

In the published document you may want to create interactive cross references to other sections within the document; for example, a citation to a heading in a document that a user can click to navigate to that section. This can be achieved using the cite_sec character style, available in eXtyles.

In Word, apply the cite_sec character style to any heading cross reference in the document. For example, the cross reference to the heading "Science of Water Resources in New York" is styled with the cite_sec character style:
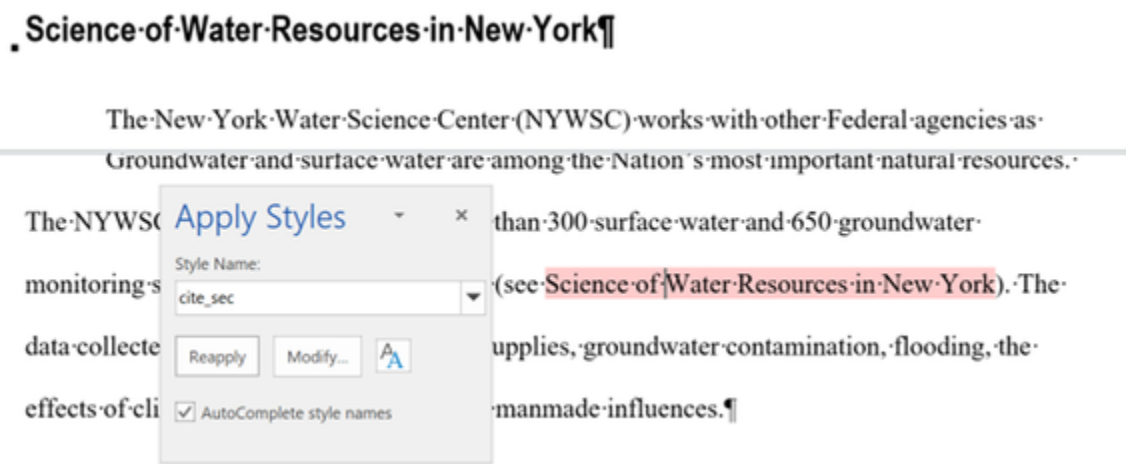
⚠️ eXtyles Citation Matching will *not* automatically apply the cite_sec character style. You will need to apply it by hand.

The eXtyles BITS export will then produce `<xref>` markup to that section. For example,

```
<sec id="ip079623-gip_4supervisor.Science_of_Water_Res">
<title>Science of Water Resources in New York</title>
```

and

```
<p>.....
(see <xref ref-type="sec" rid="ip079623-gip_4supervisor.Science_of_Water_Res">Science of
Water Resources in New York</xref>)
.....</p>
```

Note the matching `id` and `rid` for the section: `ip079623-gip_4supervisor.Science_of_Water_Res`

Importantly:

- Only those sections that have styled cross references will generate IDs in the XML. If a section does not have a cross reference no ID will be generated for the `<sec>`.
- Only cross references that match *exactly* the title of the section will generate an ID. So, for the above example, if the cross reference was (see Science of Water Resources in NY) no ID would be generated (because the section title spells out New York).

Post-Processing Cleanup

The eXtyles Post-Processing Cleanup feature makes another pass through a document that has already been processed with eXtyles for the next step in your workflow. It is generally used for documents that will be sent to a composition application such as Adobe InDesign or to sanitize documents that will be sent outside of USGS (e.g., to an author) for further review.

Certain options in Post-Processing Cleanup should not be run on files that will be exported from Word to XML with eXtyles. They should only be run if the eXtyles Word file is to be directly imported into another application or exported as a PDF.

To run Post-Processing cleanup:

1. Select eXtyles > Post-Processing Cleanup.
2. When the Post-Processing Cleanup dialog appears, check the boxes of the operations you want included in the process and click OK. Check a box only if you're sure it's necessary, especially if you're exporting to valid XML afterward. If you'd like the default settings adjusted, please contact eXtyles-support@inera.com.

> ⊗ **Warning**
> USGS has all Post-Processing Cleanup options turned off by default, because most actions will strip information necessary for a valid XML export of the Word file, and thus they should only be run if absolutely necessary.

> ✓ **Tip**
> You can also re-run Post-Processing Cleanup without opening the dialog again. If you press *and hold* the Shift key when selecting the Post-Processing Cleanup button on the eXtyles ribbon, the feature will re-run with the same settings as the previous run in the same document. This feature allows you, for example, to repeatedly select blocks of <unknown> references and remove the eXtyles tags from those references without re-opening the Post-Processing Cleanup dialog.

Post-Processing Cleanup Settings

Operation	Description
Run Selected Options On	Select whether you want Post-Processing Cleanup to run on the Whole Document or on Selected Text Only.

	If a block of text is selected before the Post-Processing Cleanup dialog is opened, it will default to running the options you choose only on that selected text (e.g., if you want to remove <unknown> tags from only one reference).
Apply to Reviewers	Allows the editor to select which reviewers' comments will be processed. Either All Reviewers or just the comments associated with specific functions (e.g., eXtyles Reference Check) can be selected.
Convert Word Comments to Text	Converts Word comments to inline text. The comments can be placed: • **Before Text**: before the highlighted text to which the comment has been applied, • **After Text**: after the highlighted text to which the comment has been applied, or • **Document End**: in a list at the end of the Word document. Converted comments can be prefixed and suffixed with user-definable text strings. The inserted text can optionally be made a colored font and/or boldface. Disabling this option also disables the controls for comment placement, prefix, suffix, color, and boldface. This function should not be used if the file is to be exported to XML.
Prefix/Suffix	A Word comment, when inserted into the body text, may be prefixed and suffixed with user-definable text. In addition, the text can include a unique number for each comment, the comment author's name, and the comment author's initials. These insertions are controlled with the following control codes: %N = The comment author name; %I = The comment author initials; %D = The comment number; %Z = The comment number, padded with leading zeros. For example, the default prefix/suffix text shown in the dialog to the right will take the comment "This is a comment" and insert it as " [[Q1: This is a comment]]", where 1 is the number of the comment.
Color	When enabled, this option will change the comment font to one of six color options (black, blue, red, green, gray, or violet) so that comments stand out from surrounding text.
Make Comments Bold	When enabled, this option will insert comments as boldface text so that they stand out from surrounding text.
Remove Word Comments	Remove Word comments in the file. The default is to remove all comments. However, you can also remove comments from specific reviewers by selecting the reviewer on the dropdown list (Apply to Reviewers).

Text Color

Operation	Description
Remove Word Text Highlights	eXtyles sometimes makes use of Word's highlighting to make certain text stand out or easier to proof. This option will remove all highlights that have been applied to the text, whether by eXtyles or by an editor.

Remove Word Text Shading	eXtyles sometimes makes use of Word Background Text Shading to make certain text stand out or easier to proof. This option will remove all text shading that has been applied to the text, whether by eXtyles or by an editor.
Remove Paragraph Shading	eXtyles sometimes makes use of Word's Paragraph Shading to make certain text stand out or easier to proof. This option will remove all paragraph shading that has been applied to the text, whether by eXtyles or by an editor. Note that this option will remove paragraph shading even if it has been applied to paragraphs inside tables.

Word Styles

Operation	Description
Convert User-Defined Character Styles to Face Markup	Converts application of user-defined character styles to plain face markup. This cleanup is helpful in preparing the document for desktop publishing, where it may not be desirable to keep character styles. This function can also be used in conjunction with "Remove Text Shading" and "Remove eXtyles Tags" to "cleanup" a reference list after eXtyles processing.
Remove Unused Word Styles	Removes any Word paragraph and character styles that are not in use in the document. This feature is mostly an aid to certain tools used with Quark XPress to index content.

> ⊗ **Warning**
> The Convert User-Defined Character Styles to Face Markup function should **not** be used if the file is to be exported to XML.

eXtyles Tags

Operation	Description
Remove eXtyles Tags	This function is used to remove the tags that eXtyles inserts at the start and end of each reference. If no paragraph style has been selected in either drop-down menu, please select the paragraph style used for your reference list.

> ⊗ **Warning**
> The Remove eXtyles Tags function should not be used if the file is to be exported to XML.

Other

Operation	Description
Remove Hyperlinks starting with text	This function enables users to strip hyperlinks to DOIs that were automatically inserted during eXtyles reference validation processes.
Convert Footnotes and Endnotes to Plain Text	

	If you prefer to maintain Word Footnote and Endnote structure during copy editing (by default, Word Footnotes and Endnotes are converted to plain text and moved to the end of the document at Cleanup). For more information, contact your support representative at Inera (extyles-support@inera.com).
Convert plain-text Footnotes and Endnotes to Word Footnotes and Endnotes	This function allows plain-text notes to be converted to Word Footnotes and Endnotes.

> ⊗ **Warning**
> The Remove Hyperlinks starting with text function should not be used if the file is to be exported to XML.

In addition, Post-Processing Cleanup has three buttons to rapidly create default settings:

- **Set All**: Set all options in the dialog to active.
- **Clear All**: Clear all options in the dialog. Click this button first if you want to run just a single operation such as removing comments from a specific reviewer.
- **Reset**: Resets the default check boxes of the dialog.

Recommended Settings for Word-to-PDF Workflow

Occasionally USGS may publish PDFs from Word – or use a workflow for a particular document that requires the removal of all eXtyles character styles and colors. In this case, you will find the following Post-Processing Cleanup settings helpful in cleaning up your document after eXtyles processing.

- **Remove Word Text Highlights:** This removes all colored highlighting, such as that applied during Auto-Redact
- **Remove Word Text Shading**: This removes all text shading, such as the colored shading applied to references, citations, and authors
- **Convert User-Defined Character Styles to Face Markup**: This removes the character styles, such as those applied references, citations, and authors, while preserving face markup such as italics and bold
- **Remove eXtyles Tags**: This removes fielded tags, such as <jrn> in a reference list

eXtyles Tools

In addition to the functions used during the eXtyles process, the eXtyles menu also includes a variety of "eXtyles Tools" that can be used at any time during the eXtyles process. These tools are designed to give you more flexibility when reviewing and editing your document.

This section of the user guide describes these additional tools and how to use them.
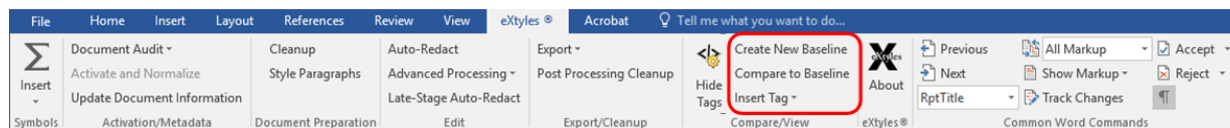
Baseline Files and Their Use

Create New Baseline

eXtyles creates a single baseline backup copy of your original document on activation. Sometimes it may be useful to have more than one baseline version of a document. For example, if a significant number of Cleanup changes are made prior to Auto-Redact, it may be useful to make a second baseline just prior to Auto-Redact. This second baseline will make it easier to view only those changes made by the Auto-Redact function without having to review those changes that resulted from the document Cleanup. By saving multiple baselines in this fashion, you can compare to either the original document or the document as it existed immediately prior to Auto- Redact.

Create New Baseline acts as follows:

1. It checks for the existence of documents called Document$base.doc and Document$original.doc.
2. If neither document exists, it will save the new baseline as Document$base.doc If only Document$base.doc exists, it renames this document to be Document$original. doc and saves the new baseline as Document$base.doc.
3. If both Document$base.doc and Document$original.doc exist, it renames Document$base.doc to Document$base1.doc and then saves as new baseline as Document$base.doc. Subsequent saves will rename Document$base.doc as Document$base2.doc, etc.

If you have two or more baseline versions saved, a dialog will open when you select the Compare to Baseline menu item. This dialog will list all baseline versions that you have saved with the most recent one highlighted at the top of the list. You can select the most recent baseline or any other one to perform a comparison between your document in its current state and the selected baseline.
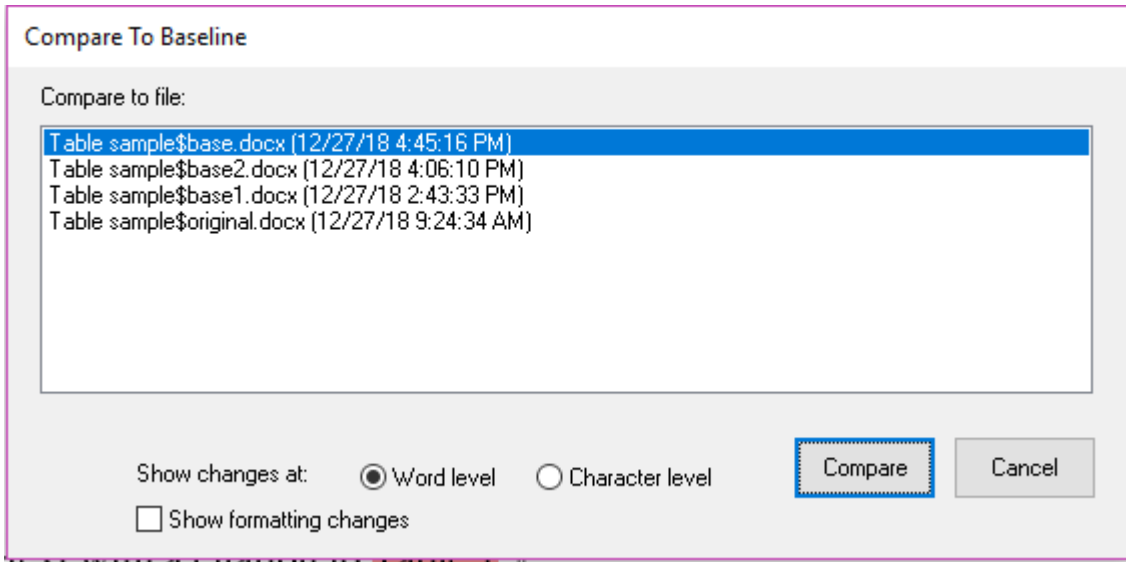
Compare to Baseline

To compare the current version of the document being processed by eXtyles with one of the baseline copies:

1. Select eXtyles > Compare to Baseline.

A dialog appears and lists all the baseline versions that have been saved. The date and time appears in parentheses next to each document, for example, Document$base.doc (2/15/12 1:43 PM). The most recent version is highlighted at the top of the list. You can select any of the baseline versions to perform the comparison with your current document.

2. Select the desired document and click Compare.

> **⊗ Warning**
>
> Do not make changes in the Baseline Compare document: make all changes in the original file. eXtyles functions are disabled on all baseline compare documents as a safety measure.

Word-Level Comparison versus Character-Level Comparison

In Word 2007 and later, if there are multiple baseline files available, you will have the option to show changes at the word level or the character level. If you choose the word level, a word in which there is a single-character change will appear to have been replaced completely (i.e., if the word "armour" is changed to "armor," it will appear as if the entire word "armour" has been replaced with "armor" rather than just one letter); if you choose the character level, just the letter "u" will be tracked as a deletion rather than the entire word appearing to have been replaced.

If there is only one baseline file available when you select Compare to Baseline, eXtyles defaults to showing changes at the Word level.

> **⚠ Note**
>
> There is no difference in the end result in the Word document! The two options affect only how Word displays changes in comparisons in the Compare to Baseline feature. Either option is a safe choice.

Formatting Changes

In addition to viewing the changes in your Word document at the word level or character level, you can also view all formatting changes made to your document. Formatting changes include modifications to font, paragraph spacing, face markup like bold or italic, and more. To highlight formatting changes in your comparison file, check the box for "Show formatting changes" before clicking Compare on the Compare to Baseline dialog.

Source Document Display Options

You can also change the display of source documents (the documents that are to be compared, such as a working document and a baseline document) in Word by viewing the Review ribbon in Word and clicking Compare toward the right of the ribbon; from the

Compare drop-down menu, you can choose Show Source Documents and one of the following settings: Hide Source Documents, Show Original, Show Revised, or Show Both. The default setting in eXtyles Compare to Baseline is Hide Source Documents, which means that by default, you see only the comparison result between the original document and the baseline.

Baseline Compare Issues

In a few instances, the Compare to Baseline compare function signals spurious differences between the initial and cleaned-up texts, as described in the following subsections.

Special Characters

Certain special characters (symbols such as degree, times, similar, less and greater than, plus or minus, etc.) are highlighted as having been changed. The words containing these characters are crossed out in the baseline comparison file and rewritten. There may be no actual difference between the initial and the cleaned font and font size. This means you might see something like the following examples:

~~ALCOVER®~~ALCOVER®

~~(~25~~(~25

~~±~~±

~~4°~~4°

Greek Letters

Greek letters (and other characters) are highlighted as having been changed if eXtyles uses the Symbol font to represent them. The words containing these characters are crossed out and rewritten. The cleaned version of the Greek character is exactly the same as the original one:

~~Xpter→q11~~ Xpter→q11

~~MΩ~~MΩ

~~γ-hydroxybutyric~~γ-hydroxybutyric

~~δ)~~δ)

~~(2α)~~(2α)

Fields

If some text in the initial document is represented in a field, eXtyles converts the field to text. Baseline compare signals a difference:

~~[3, 14, 53]~~[3, 14, 53]

When you review the original text, it appears shaded to indicate that it was a field.

Automatic Numbering

In automatically numbered sections of text, the following differences may appear in the cleaned version:

- Numbering may be reformatted
- Numbers may be re-represented.
- Indentation and tab lengths may be altered.

When numbering is reformatted, you see:

5.———Shouakai Wang and D.D.L. Chung, "Interlaminar Interface in

When numbers are re-represented, you see:

3.3.———Shouakai Wang and D.D.L. Chung, "Interlaminar Interface in

Private Fields

eXtyles removes private fields and leaves the notation [REMOVED PRIVATE FIELD] in their place.

Advance Fields

eXtyles removes advance fields and leaves the notation [REMOVED ADVANCE FIELD] in their place.

Added Returns

eXtyles may insert a return before page breaks or after removed table notation, or at the end of a document.

Journal Database Update

The Journal Database Update tool downloads the latest version of the journal database files from extyles.com and saves them to your Temp directory. The most up-to-date versions of these files are then used during eXtyles Reference Processing.

Your eXtyles configuration may be set to update the journal database files manually, automatically, or never. If your journal database tool is set to automatically update daily, weekly, or monthly, you can still update the database manually through the About box.

To update your journal database manually, click the About button on the eXtyles ribbon to open the About eXtyles dialog. Click Update Journal Database to download and update your journal database files.

Automatic updates are triggered by Bibliographic Reference Processing. When you run Reference Processing, eXtyles first checks to see whether automatic updates are enabled and the schedule for those updates (e.g., Daily, Weekly, or Monthly). Then eXtyles checks the date of the last update from a stored setting. If the date of the last update is older than the date prescribed by your update schedule, eXtyles will automatically run the update process before continuing to process your bibliographic references.

Regardless of your automatic update settings, you can easily check the date of your last journal database update in the About eXtyles dialog.

⚠️

The Insert Tag Menu

The items on the eXtyles Insert Tag menu allow greater control over the XML output. The USGS eXtyles Insert Tag menu includes tags for common reference types and tags for the specific handling of certain types of objects, such as figures and boxes.

Further, eXtyles for USGS includes tags that are required to support an automated InDesign layout process using the Typefi software. Those tags are described in detail in this section, and pertain primarily to the size and layout of images and tables.

⚠ **Note**

Any time the instructions below call for an eXtyles Tag (tag names highlighted in bold) to be added to a figure or box, you must add the eXtyles Tag to the **end** of the object title. Adding it at the beginning of the object title will interfere with eXtyles processes to automatically assign IDs to objects during export.

Reference Tags

The first section of the Insert Tag menu consists of tags for various reference types (Book Reference, Conference Reference, etc.) to allow the type of reference to be tagged manually if the eXtyles Bibliographic Reference Processing fails to identify the reference type correctly, even when the reference is correctly copy edited. To use these tags, follow these steps:

- Remove the incorrect tags from the start and end of the problematic reference. The safest way to do this is to place the cursor immediately after the tag and use the Backspace key twice to first highlight and then delete the tag.
- Highlight the entire paragraph with the reference.
- Select the appropriate reference type from the Insert Tag menu.

After applying the tag manually, you may add additional markup to the reference with Word character styles as necessary.
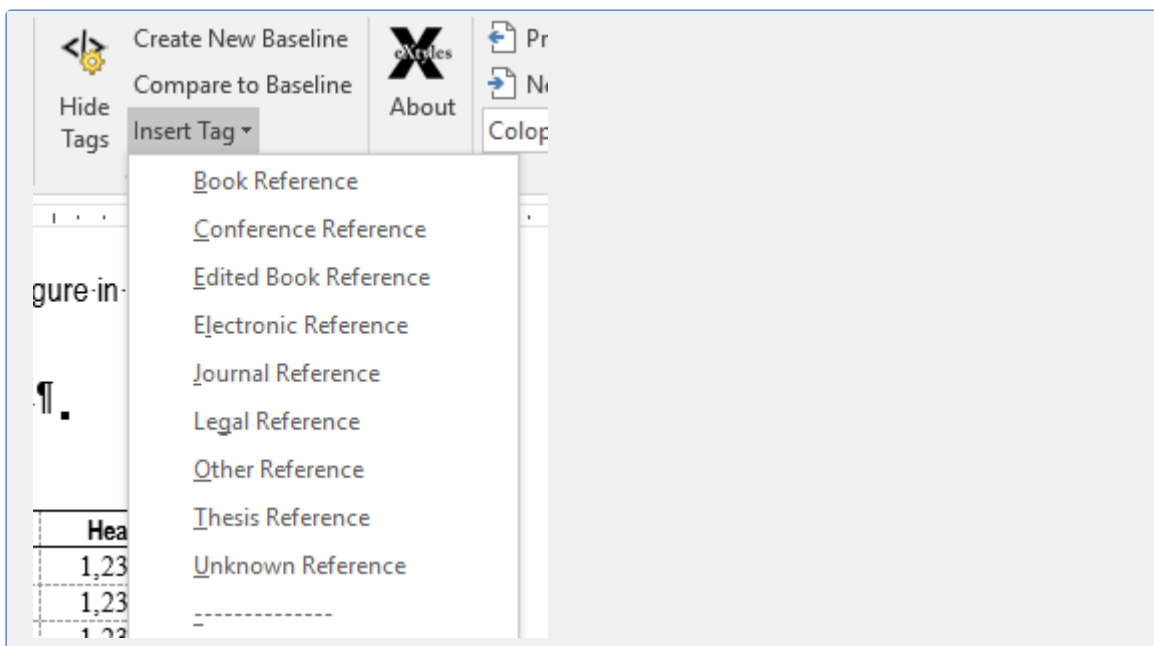
Object Tags

Following the Reference Tags, three object tags are available on the Insert Tag menu. During XML export, these tags enable eXtyles to act in specific ways on certain objects.

Graphic Tag

The Graphic tag should be used when a figure's <graphic> pointer in the XML must be named in some way other than the established convention. For example, if you must name an image "CoverPhoto-Ostrich", insert the Graphic tag after the photo's caption, and add the file name between the open and close <graphic> tags. For example,

This is a photo of an ostrich**<graphic>**CoverPhoto-Ostrich**</graphic>**

The information in the Graphic tags will overwrite the figure-naming convention that eXtyles applies to all images, and in the XML the graphic pointer will become:

```
<graphic xlink:href="CoverPhoto-Ostrich"/>
```

Figure Panels Tag

Sometimes a figure may have multiple image files (panels), particularly when it is in multiple parts. For example, an author might have created figures 1A, 1B, 1C, and 1D, each as a separate file. In this situation, you will need four <graphic> elements in the XML.

This can be done by using the Insert Tag item on the eXtyles Menu to insert a Figure Panels tag at the end of the figure caption, which inserts a tag like this:

<panel></panel>

If each panel is a separate image file, type in the letter of the last panel, like this:

Figure 1. Conceptual model of linkages among physical and biological processes along the coast to assess climate-induced changes.**<panel>**d**</panel>**

The resulting XML will look like this:

```
<fig id="fig01" position="float" fig-type="figure">
<label>Figure 1</label><caption><p>Conceptual model of linkages among physical and
biological processes along the coast to assess climate-induced changes.</p></caption>
```

```
<graphic xlink:href="ofr2015_fig01a"/>
<graphic xlink:href="ofr2015_fig01b"/>
<graphic xlink:href="ofr2015_fig01c"/>
<graphic xlink:href="ofr2015_fig01d"/>
</fig>
```

Or, if in the same example, panel A is one file, panels B and C are one file, and panel D is one file (i.e., only three image files), use the Figure Panels tag like this:

Figure 1. Conceptual model of linkages among physical and biological processes along the coast to assess climate-induced changes.**<panel>**a,bc,d**</panel>**

The resulting XML will look like this:

```
<fig id="fig01" position="float" fig-type="figure">
<label>Figure 1</label><caption><p>Conceptual model of linkages among physical and
biological processes along the coast to assess climate-induced changes.</p></caption>
<graphic xlink:href="ofr2015_fig01a"/>
<graphic xlink:href="ofr2015_fig01bc"/>
<graphic xlink:href="ofr2015_fig01d"/>
</fig>
```

Box Type Tag

In some cases, you may have boxes for which you would like a unique content-type attribute. This can be set easily in eXtyles using the Box Type tag found on the eXtyles Insert Tag menu. By adding this tag at the end of a box title, and placing the box type in between the tags, eXtyles will convert that information into the content-type attribute on export.

For example, this content in the Word file (Styled with the paragraph style Sidebar Title):

Other Hosts of Adult *Baylisascaris procyonis***<box-type>**Feature**</box-type>**

yields this XML:

```
<boxed-text id="ba" content-type="Feature">
<caption><title>Other Hosts of Adult <italic>Baylisascaris procyonis</italic></title><
/caption>
```

Single Column Tag

When you have content that must be laid out as a single column, the Single Column tag can be added after the Head 1 preceding the single-column section. This will result in a processing instruction in the XML that will indicate to Typefi that the following section should be set single column.

For example, the following Head 1:

Causative Agent**<SingleColumn></SingleColumn>**

results in this XML:

```
<sec>
<title>Causative Agent<?single column?></title>
```

Size and Caption Tags for Figures and Tables

The eXtyles tag menu includes tags that, when used, will produce processing instructions (PIs) in the XML that an automated InDesign layout program such as Typefi can use to ensure that images, tables, and sidebars/boxes are properly sized and placed in the PDF. PIs look like this in the XML: **<?Figure Small?>**

Note that during the manuscript preparation stage of production (during which eXtyles is used) you may not know what the size or layout of images and tables will be. These tags are not required to export valid XML, and so you can create XML that can be used for layout without the use of these tags. However, if you are then asked to add them by the layout artist, note the following.

> ⚠ **Note**
>
> You should not add content between the eXtyles size tags for figures and tables. Unlike the type and graphic tags (box-type, panel, graphic) where text inside the tags is used to generate attributes in the XML, the size tags simply generate processing instructions for the InDesign layout software; therefore, they should not contain text within them.
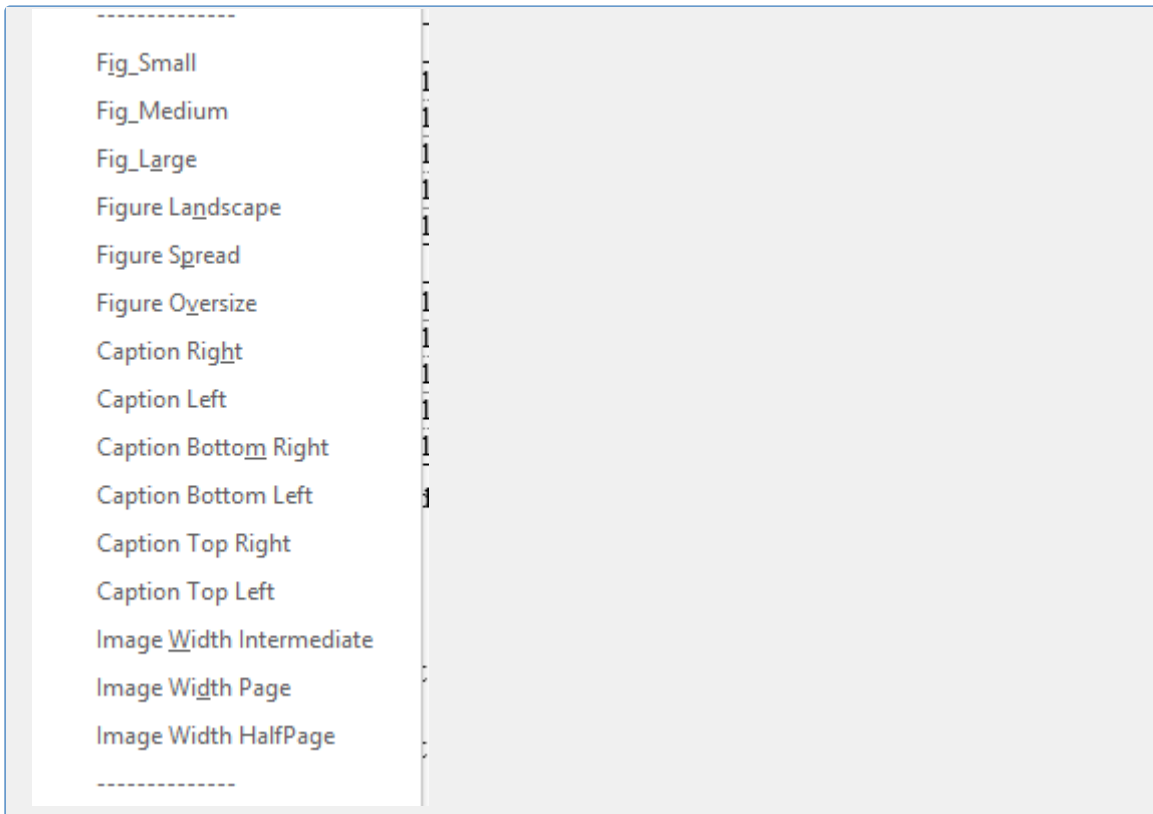

Figure Small, Figure Medium, and Figure Large

When used, these tags will tell the layout software how large to size the image. The tags should be placed at the end of the figure caption. For example, a large image would have the following caption:

Figure 1. Location of study area, selected sampling sites, and data-summary reaches in the upper Clark Fork Basin, Montana; the Milltown Reservoir/Clark Fork River Superfund Site includes the reaches from sampling site 8 to sampling site 22.**<Fig_Large></Fig_Large>**

```
<fig id="fig01" position="float" fig-type="figure"><?Figure Large?><label>Figure 1<
/label><caption><p>Location of study area, selected sampling sites, and data-summary
reaches in the upper Clark Fork Basin, Montana; the Milltown Reservoir/Clark Fork River
Superfund Site includes the reaches from sampling site 8 to sampling site 22.</p><
/caption><graphic xlink:href="tac16-1008_fig01"/></fig>
```

Figure Landscape, Figure Spread, and Figure Oversize

Use these tags at the end of the captions for figures that will be set landscape, across a spread, or that will be oversize (e.g., extend beyond the margins).

Caption Tags

Use these tags to indicate where relative to the image the caption should be placed. For example, to the left or right of the image, or at the top or bottom.

Image Width Tags

Use these tags to indicate the width of the image; that is, whether it should be a half or whole page in width, or somewhere in between (intermediate).

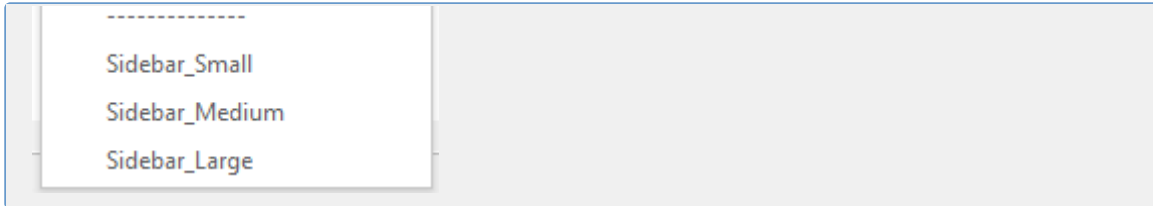## Table Size Tags: Small, Medium, Large, and Spread
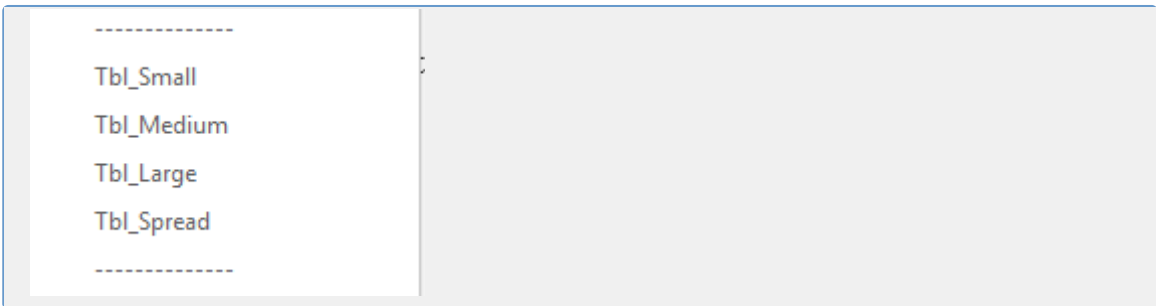
When used, these tags will tell the InDesign layout software how large to size the table. The tags should be placed at the end of the table title. For example, a small table would have the following title:

Table 1. Naming conventions applicable to identifiers, files, programs, namespaces, and modules in any programming language.**<Tbl_Med></Tbl_Med>**
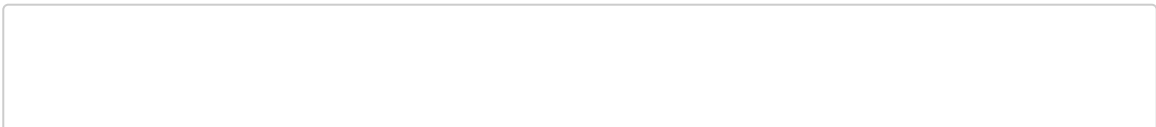
```
<label>Table 1</label><caption><title>Naming conventions applicable to identifiers,
files, programs, namespaces, and modules in any programming language.<?Table Med?><
/title></caption>
```

Sidebar Size Tags: Small, Medium, and Large

When used, these tags will tell the InDesign layout software how large to size sidebars or boxes. The tags should be placed at the end of the first line of sidebar/box text (i.e., title, heading, or box text). For example, a large sidebar may have the following title:

Schematic Cross Section of a Typical Subduction Zone.**<Sidebar_Small></Sidebar_Small>**

```
<boxed-text id="ba"><?Sidebar Small?>
<caption><title>Schematic Cross Section of a Typical Subduction Zone.</title></caption>
.....</boxed-text>
```