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eXtyles®

User  
Documentation

NLM DTD / JATS XML EXPORT

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# JATS/NLM DTD Export Filters

Your implementation has a custom export filter designed to create XML files that are valid according to one or more varieties of the NLM Book DTD, the BITS (Book Interchange Tag Suite) DTD, the JATS (Journal Article Tag Suite) DTD, and/or the NLM Journal Publishing DTD. When exporting files from eXtyles, select the appropriate option from the eXtyles 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.

The following documentation has been developed with generic paragraph style names. The specific names used for some elements (e.g. Book Information in a book review) will vary according to the specific paragraph style names used within your eXtyles configuration.

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## DTDs

The latest book DTD that is currently supported by eXtyles is version 1.0 of the BITS DTD. For journal articles, the latest version of the DTD that eXtyles supports is version 1.1 of JATS. This documentation is written from the perspective of these latest versions of the journal and book DTDs; pertinent differences in earlier DTD versions are noted.

At present, eXtyles users that publish standards generally use a modified version of the Journal Publishing DTD extended to support the other elements inherent in standards publication. This documentation does not cover the ways in which the use of eXtyles to export XML for standards differs from that for books or journal articles.

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 your publication's 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. Although eXtyles supports ranges of numbered literature citations (e.g. "see refs 12–15"), ranges of display items (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". If you need to use ranges of display items in your content, please contact [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) for more information and a possible alteration to your export filter.
6. 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. 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").

## 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.

## 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 be configured to 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 eXtyles misapplied the `au_orgname` character style instead. When this happens, please fix the character style manually and report the missing degree to **[eXtyles-support@inera.com](mailto:exstyles-support@inera.com)**.

Introductory text in an "author" paragraph, such as "Edited by", must also be styled, in this case as **`au_prefix`**.

If your configuration includes the Author Processing module, more information is included in the relevant section in the eXtyles User Documentation.

## ORCIDs

With the launch of JATS 1.0, the latest version of what was previously the NLM DTD, there is now support for contributor IDs in a widely adopted and supported XML format. Many eXtyles customers are keen to introduce ORCID iDs; however, what is less clear at the moment is when and how publishers will incorporate them into their publication workflows.

ORCID support has been added to the eXtyles XML export. If ORCID(s) are included in the author line of a manuscript in this form:

John Smith (<http://orcid.org/0000-0001-6858-8806>), Jane Smith (<http://orcid.org/0000-0002-2808-802X>)

then eXtyles will export them as:

```
<ext-link ext-link-type="orcid" xlink:href="http://orcid.org/0000-0001-6858-8806"/>http://orcid.org/0000-0001-6858-8806</ext-link>
```

inside the <contrib> element when using the NLM DTD (any version), or as:

```
<contrib-id contrib-id-type="orcid">http://orcid.org/0000-0001-6858-8806</contrib-id>
```

when using JATS, which added the new contrib-id element.

For now, this behavior assumes a manual copy/paste of the ORCID from the online submission system into the Word file.

## Author Affiliations

Author affiliations can be edited as one affiliation per paragraph; alternatively, eXtyles now also supports 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:

**Daniel Růžek**<sup>1</sup> **Patrik Kilian**<sup>2</sup> **Martin Tlustý**<sup>3</sup> and **Ivan Gelbič**<sup>4</sup>

<sup>1</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

<sup>2</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic and Faculty of Science, University of South Bohemia, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

<sup>3</sup>Pierre de Coubertin High School, František Křižík Sq. 860, CZ-39030 Tábor, Czech Republic

<sup>4</sup>Institute of Entomology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

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

```

<contrib-group>

<contrib contrib-type="author">

<name><surname>Růžek</surname><given-names>Daniel</
given-names></name>

<xref ref-type="aff" rid="aff1"><sup>1</sup></xref>

</contrib>

<contrib contrib-type="author">

<name><surname>Kilian</surname><given-names>Patrik</given-
names></name>

<xref ref-type="aff" rid="aff2"><sup>2</sup></xref>

</contrib>

<contrib contrib-type="author">

<name><surname>Tlustý</surname><given-names>Martin</
given-names></name>

<xref ref-type="aff" rid="aff3"><sup>3</sup></xref>

</contrib>

<contrib contrib-type="author">

<name><surname>Gelbin</surname><given-names>Ivan</given-
names></name>

<xref ref-type="aff" rid="aff4"><sup>4</sup></xref>

</contrib>

<aff id="aff1"><label>1</label>Institute of Parasitology,
Biology Centre of the Academy of Sciences of the
Czech Republic, Branišovská; 31, CZ-37005
&Caron;eská; Budějovice, Czech Republic</aff>

<aff id="aff2"><label>2</label>Institute of Parasitology,
Biology Centre of the Academy of Sciences of the Czech
Republic and Faculty of Science, University of South Bohemia,
Branišovská; 31, CZ-37005 &Caron;eská;
Budějovice, Czech Republic </aff>

```

```
<aff id="aff3"><label>3</label>Pierre de Coubertin High School,
František Křížík Sq. 860, CZ-39030
Tábor, Czech Republic </aff>
```

```
<aff id="aff4"><label>4</label>Institute of Entomology, Biology
Centre of the Academy of Sciences of the Czech Republic,
Branišovská 31, CZ-37005 České Budějovice,
Czech Republic</aff>
```

```
</contrib-group>
```

Alternatively, each author's name can be followed by their affiliation, without the need for affiliation numbers or footnote symbols, as follows:

**Daniel Růžek**

Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

**Patrik Kilian**

Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic and Faculty of Science, University of South Bohemia, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

**Martin Tlustý**

Pierre de Coubertin High School, František Křížík Sq. 860, CZ-39030 Tábor, Czech Republic

**Ivan Gelbič**

Institute of Entomology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic

The XML output from this style is similar to the first example, but there are no links between the author and their affiliation. Instead, each author appears with their affiliation in a separate `<contrib-group>` element:

```
<contrib-group>
```

```
<contrib contrib-type="author">
```

```
<name><surname>Růžek</surname><given-names>Daniel</
given-names></name>
```

```
</contrib>
```

```
<aff id="aff1">Institute of Parasitology, Biology Centre
of the Academy of Sciences of the Czech Republic,
Branišovská 31, CZ-37005 České Budějovice,
Czech Republic</aff>
```

```
</contrib-group>
```

Affiliations 1, 2, and 4 in this example share a street address, and editorially it might be preferable to combine the addresses into a single paragraph and save space. eXtyle supports this editorial style, and it is possible to obtain correct XML if the affiliations are set up like this:

Daniel Růžek,<sup>1</sup> Patrik Kilian,<sup>2</sup> Martin Tlustý<sup>3</sup> and Ivan Gelbič<sup>4</sup>

Institutes of Parasitology<sup>1</sup> and Entomology<sup>4</sup>, Biology Centre of the Academy of Sciences of the Czech Republic, and Faculty of Science, University of South Bohemia<sup>2</sup>, Branišovská 31, CZ-37005 České Budějovice, Czech Republic; <sup>3</sup>Pierre de Coubertin High School, František Křížík Sq. 860, CZ-39030 Tábor, Czech Republic

which yields this XML:

```
<contrib-group>
```

```
<contrib contrib-type="author">
```

```
<name><surname>Růžek</surname><given-names>Daniel</
given-names></name>
```

```
<xref ref-type="aff" rid="aff1"><sup>1</sup></xref>
```

```
</contrib>
```

```
<contrib contrib-type="author">
```

```
<name><surname>Kilian</surname><given-names>Patrik</given-
names></name>
```

```
<xref ref-type="aff" rid="aff3"><sup>2</sup></xref>
```

```
</contrib>
```

```
<contrib contrib-type="author">
```

```
<name><surname>Tlustý</surname><given-names>Martin</
given-names></name>
```

```

<xref ref-type="aff" rid="aff4"><sup>3</sup></xref>

</contrib>

<contrib contrib-type="author">

<name><surname>Gelbi&ccaron;</surname><given-names>Ivan</given-
names></name>

<xref ref-type="aff" rid="aff2"><sup>4</sup></xref>

</contrib>

<aff>Institutes of Parasitology<target id="aff1"><sup>1</
sup></target> and Entomology<target id="aff2"><sup>4</
sup></target>, Biology Centre of the Academy of Sciences
of the Czech Republic, and Faculty of Science, University
of South Bohemia<target id="aff3"><sup>2</sup></target>,
Brani&scaron;ovsk&aacute; 31, CZ-37005 &Ccaron;esk&eacute;
Bud&ecaron;jovice, Czech Republic; <target id="aff4"><sup>3</
sup></target> Pierre de Coubertin High School, Franti&#x0161;ek
K&rcaron;i&zcaron;&iacute;k Sq. 860, CZ-39030 T&aacute;bor,
Czech Republic</aff>

</contrib-group>

```

Notice that the affiliation IDs are assigned in the order in which they appear in the affiliation paragraph, which does not necessarily correspond to the actual numbers used.

If you would like to be able to support this affiliation style in your content, you should discuss it with any downstream vendors such as online hosting providers, as they may not by default be able to support this presentation style.

## Correspondence Details

Similar to affiliations, eXtyles supports linking of correspondence details either with or without a footnote symbol. Both of the following examples will yield the correct correspondence details in the XML:

1. Corresponding author indicated by a footnote symbol (note style names in brackets):

Daniel Růžek,<sup>1</sup> Patrik Kilian,<sup>2</sup> Martin Tlustý<sup>3</sup> and Ivan Gelbič<sup>4</sup> [Authors]

<sup>1</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

<sup>2</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic and Faculty of Science, University of South Bohemia, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

<sup>3</sup>Pierre de Coubertin High School, František Křížík Sq. 860, CZ-39030 Tábor, Czech Republic [Affiliation]

<sup>4</sup>Institute of Entomology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

\*Author for correspondence. [Correspondence]

2. Corresponding author named in a "correspondence" paragraph without a footnote symbol

Daniel Růžek,<sup>1</sup> Patrik Kilian,<sup>2</sup> Martin Tlustý<sup>3</sup> and Ivan Gelbič<sup>4</sup> [Authors]

<sup>1</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

<sup>2</sup>Institute of Parasitology, Biology Centre of the Academy of Sciences of the Czech Republic and Faculty of Science, University of South Bohemia, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

<sup>3</sup>Pierre de Coubertin High School, František Křížík Sq. 860, CZ-39030 Tábor, Czech Republic [Affiliation]

<sup>4</sup>Institute of Entomology, Biology Centre of the Academy of Sciences of the Czech Republic, Branišovská 31, CZ-37005 České Budějovice, Czech Republic [Affiliation]

**Correspondence:** Ivan Gelbič (gelbic@entomology.cz). [Correspondence]

In the second example, the corresponding author's name should match his or her name in the author line in order for eXtyle to successfully add the appropriate XML (`corresp="yes"`) to the author's name within the `<contrib-group>` (see the following example output). The matching process is more robust if both the given name(s) and surname appear in the correspondence paragraph, rather than just the surname.

Within the XML, the corresponding author's name is tagged as follows:

```
<contrib contrib-type="author" corresp="yes">
  <name><surname>Gelbi&ccaron;</surname><given-names>Ivan</given-
  names></name>
  <xref ref-type="aff" rid="aff4"><sup>4</sup></xref>
  <xref ref-type="corresp" rid="cor1">&ast;</xref>
</contrib>
```

Note that the `<xref ref-type="corresp">` element appears only if a footnote symbol is used to indicate the corresponding author (see the first example above).

A `<corresp>` element then appears within the `<author-notes>`. In the first example, the element reads:

```
<corresp id="cor1">
  <label>&ast;</label>Author for correspondence.
</corresp>
```

In the second example, the `<corresp>` element reads:

```
<corresp id="cor1">
  <bold>Correspondence:</bold> Ivan Gelbi&ccaron; (<email
  xlink:href="gelbic@entomology.cz">gelbic@entomology.cz</email>).
</corresp>
```

Note that eXtyles has tagged the email addresses without the need for any intervention. By default, eXtyles will automatically identify and tag email addresses within Affiliation and Correspondence paragraphs. Please contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you have email addresses in other paragraphs that should be automatically tagged.

## Hand-tagging Elements of Author Affiliations and Correspondence Details

Beyond email addresses, eXtyles does not add further granular structure to author affiliations or correspondence paragraphs by default. However, support is available for a number of individual elements within author affiliation information. With the exception of the country (see below), these elements must be identified manually and tagged **carefully** by hand.

The elements that are currently supported are Institution, Country, Phone, Fax, and the generic element Address Line. These elements are respectively represented by the character styles `af_institution`, `af_country`, `af_phone`, `af_fax` and `af_addr-line`. These character styles can be applied to either Affiliation or Correspondence paragraphs.

An example of a hand-tagged Affiliation and Correspondence section is shown below:

J. Craig Venter [Authors]

`Synthetic Genomics Inc.`, `11149 North Torrey Pines Road`, `La Jolla`, `CA 92037`,  
`USA` [Affiliation]

Correspondence: `jcraigventer@synthetic.com`. Phone: `+1 555 123 4567`; Fax: `+1 555 987 6543`. [Correspondence]

This would generate the following XML:

```
<contrib-group>

<contrib contrib-type="author"><name><surname>Venter</
surname><given-names>J. Craig</given-names></name></contrib>

<aff id="aff1"><institution>Synthetic Genomics Inc.</
institution>, <addr-line>11149 North Torrey Pines Road</addr-
line>, <addr-line>La Jolla</addr-line>, <addr-line>CA 92037</
addr-line>, <country>USA</country></aff>

</contrib-group>

<author-notes><corresp id="cor1">Correspondence: <email
xlink:href="jcraigventer@synthetic.com">jcraigventer@synthetic.
com</email>. Phone: <phone>+1 555 123 4567</phone>; Fax: <fax>+1
555 987 6543</fax>.</corresp></author-notes>
```

Note that there is no requirement for **all** of the text in either the Affiliation or Correspondence paragraph to be hand-tagged; only those elements that you want to identify in the XML need to be tagged.

It is possible for eXtyles to parse the country from the affiliation automatically, although this setting is off by default.

Contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you require the ability to hand-tag elements of author affiliations and/or you require automatic tagging of countries within affiliations.

## Author Biographies

Author biographies can be set up in one of two ways, depending on your eXtyle configuration.

By default, authors are not linked to their biographies in the XML file during export, and are placed in the <back> of the XML file. Author biographies may be placed anywhere in the Word document. In this example, the author biography appears after the author affiliation:

**Erwin A. Alampay** [Authors]

National College of Public Administration and Governance (NCPAG), Raul P. de Guzman St., University of the Philippines, Diliman, Quezon City 1101, Philippines [Affiliation]

Erwin A. Alampay is an Associate Professor at the National College of Public Administration and Governance, University of the Philippines. [Biography]

When exported to XML, author and affiliation are contained in the <front> section of the XML:

```
<contrib-group>
<contrib contrib-type="author"><name><surname>Alampay</surname><given-names>Erwin A.</given-names></name></contrib>
<aff>National College of Public Administration and Governance (NCPAG), Raul P. de Guzman St., University of the Philippines, Diliman, Quezon City 1101, Philippines</aff>
</contrib-group>
```

and the author biography is in the <back> section:

```
<back>
<bio>
<p>Erwin A. Alampay is an Associate Professor at the National College of Public Administration and Governance, University of the Philippines.</p>
</bio>
</back>
```

eXtyles can be configured to link authors to their biographies and to move the biography paragraph into the author's <contrib> element from wherever the paragraph appears in the Word document. This second configuration yields the following XML:

```
<contrib-group>

<contrib contrib-type="author"
rid="bio1"><name><surname>Alampay</surname><given-names>Erwin
A.</given-names></name><xref ref-type="aff" rid="aff1">1</xref>

<bio id="bio1">

<p>*Erwin A. Alampay is an Associate Professor at the National
College of Public Administration and Governance, University of
the Philippines.</p>

</bio></contrib>

<aff id="aff1"><label>1</label>National College of Public
Administration and Governance (NCPAG), Raul P. de Guzman St.,
University of the Philippines, Diliman, Quezon City 1101,
Philippines</aff>

</contrib-group>
```

With linked biographies, the <bio> element can also be placed in within the <back> section of the XML file, depending on your export filter configuration.

Note that linking requires an exact match between the authors' names in the author paragraph and the biography paragraph.

If you require linking between biographies and authors, please contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com).

## Author Contributions

The JATS and NLM Book DTDs do not contain an element that is specifically designed to accommodate details of authors' contributions to a study. Within the eXtyles NLM configuration, the most appropriate paragraph style to use is **Author\_Footnote**. There are a couple of limitations to the use of **Author\_Footnote** to accommodate author contribution information. First, each paragraph of the author contribution information will be exported as a separate footnote in the XML. Second, there is no style for a distinct Contributors heading paragraph; a run-in head should be used.

This paragraph in Word, styled as **Author\_Footnote**:

**Contributors:** Some information about contributors.

would be rendered as follows in the XML by default:

```
<author-notes>
<fn id="afn1"><p><b>Contributors:</b> Some information
about contributors.</p></fn>
</author-notes>
```

More sophisticated handling of author contribution information (for example, inclusion of an fn-type attribute, e.g. fn-type="contributors") would require additional customization of your export filter.

## Footnotes

### Handling Complex Footnotes

eXtyle can handle even the most complex of footnotes, provided your configuration has been set up to deal with them. Footnotes can be divided into the following four categories, of increasing complexity and hopefully decreasing frequency:

1. A single paragraph of text. This should use the appropriate footnote, note or endnote style.
  1. 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. [Footnote]

which gives this XML:

```
<fn id="FN1">
<label>1</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>
```

2. Two or more paragraphs of text. The first paragraph should carry the appropriate footnote, note or endnote style. The second and subsequent paragraphs will require a "Footnote\_Continued" style.

2. Whether a country's currency is undervalued depends on the concept of the yardstick (i.e. the fundamental equilibrium exchange rate) used to measure its undervaluation. [Cheung et al. \(2007\)](#) provides a brief review of some of those concepts and discusses the difficulty in measuring the equilibrium exchange rate and the uncertainty surrounding those measurements. [Footnote]

Most analysts have concluded that the Chinese currency has been significantly undervalued. [Footnote\_Continued]

which gives this XML:

```
<fn id="FN2">
<label>2</label>
<p>Whether a country's currency is undervalued depends on the concept of the yardstick (i.e. the fundamental equilibrium exchange rate) used to measure its undervaluation. <xref ref-type="bibr" rid="R13">Cheung et al. (2007)</xref> provides a brief review of some of those concepts and discusses the difficulty in measuring the equilibrium exchange rate and the uncertainty surrounding those measurements.</p>
<p>Most analysts have concluded that the Chinese currency has been significantly undervalued.</p>
</fn>
```

3. One or more paragraphs of text, as well as one or more unnumbered tables (without a table caption) and/or one or more of a list of defined objects that might include lists and display equations. The first text paragraph carries the appropriate footnote style, and any subsequent text paragraphs carry the "Footnote\_Continued" style. Note that two lists would need to be separated by another paragraph(s) that did not carry a list style; otherwise, they would be combined into a single list (this is true anywhere in the document).

3. This can be shown if we derive the saving equation from a typical Keynesian consumption equation,  $C = C_0 + \alpha Y$ , where  $C$  is consumption,  $C_0$  is the subsistence consumption,  $Y$  is income, and  $\alpha$  is the propensity to consume. The corresponding saving equation would be  $S = -C_0 + (1 - \alpha)Y$ , implying that [Footnote]

$$\frac{S}{Y} = (1 - \alpha) - \frac{C_0}{Y}. \quad [\text{Display\_Equation}]$$

Thus [Footnote\_Continued]

$$\frac{d(S/Y)}{dY} > 0 \quad [\text{Display\_Equation}]$$

the saving/income ratio is a positive function of income. [Footnote\_Continued]

which gives this XML:

```
<fn id="FN3">
<label>3</label>
<p>This can be shown if we derive the saving equation
from a typical Keynesian consumption equation, <inline-
formula><inline-graphic xlink:href="9388_007-m3"/></inline-
formula>, where C is consumption, <inline-formula><inline-
graphic xlink:href="9388_007-m4"/></inline-formula>is
the subsistence consumption, Y is income, and <inline-
formula><inline-graphic xlink:href="9388_007-m5"/></inline-
formula> is the propensity to consume. The corresponding
saving equation would be <inline-formula><inline-graphic
xlink:href="9388_007-m6"/></inline-formula>, implying that</p>
<p><disp-formula id="E"><inline-formula><inline-graphic
xlink:href="9388_007-m7"/></inline-formula></disp-formula></p>
<p>Thus</p>
<p><disp-formula id="E1"><inline-formula><inline-graphic
xlink:href="9388_007-m8"/></inline-formula></disp-formula></p>
<p>the saving/income ratio is a positive function of income.</
p>
</fn>
```

Note that "9388\_007" in the previous example is a document identifier, entered using the document information dialog.

- Any of the items mentioned in (3), as well as another object(s) for which explicit provision had not been made in your export filter. In this last case, it would be necessary to use NoteBegin and NoteEnd container tags at the beginning and end of the footnote, as shown in the following example. Note that these paragraph styles are not included by default and would require custom

configuration work. Contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you believe that your content is likely to include complex footnotes.

NoteBegin [Note\_Begin]

4. See [Easterly et al. \(1997\)](#) for stylized facts and empirical findings that suggest shocks are important relative to country characteristics in determining long-run growth. Relatedly, in their attempt to interpret the experience of the East Asian countries in the context of the habit-formation model, [Carroll et al. \(2000\)](#) write:  
[Footnote]

"The evidence in William Easterly et al. (1997) suggests that the best way to model the growth experiences in the East Asian countries is as a series of positive shocks. Thus we might interpret the East Asian experience as a sequence of exogenous increases in the 'broad capital' embodied in *k* in our model. . . . One prediction of our model is that saving rates in the East Asian countries should decline once those economies stop their technological convergence with more advanced economies." [Display Quote]

(p. 351) [Footnote\_Continued]

NoteEnd [Note\_End]

which gives this XML:

```
<fn id="FN4">
<label>4</label>
<p>See <xref ref-type="bibr" rid="R21">Easterly et al. (1997)</xref> for stylized facts and empirical findings that suggest shocks are important relative to country characteristics in determining long-run growth. Relatedly, in their attempt to interpret the experience of the East Asian countries in the context of the habit-formation model, <xref ref-type="bibr" rid="R10">Carroll et al. (2000)</xref> write:</p>
<disp-quote>&ldquo;The evidence in William Easterly et al. (1997) suggests that the best way to model the growth experiences in the East Asian countries is as a series of positive shocks. Thus we might interpret the East Asian experience as a sequence of exogenous increases in the &lsquo;broad capital&rsquo; embodied in <italic>k</italic> in our model. . . . One prediction of our model is that saving rates in the East Asian countries should decline once those
```

```
economies stop their technological convergence with more
advanced economies.&rdquo;</disp-quote>
```

```
<p>(p. 351)</p>
```

```
</fn>
```

Notice that the footnote number is automatically parsed within the `<label>` element without requiring any specific formatting or styling. There are some restrictions on the format of the footnote number: it must be either (a) superscript or (b) on the baseline but followed by one of a period or a closing parenthesis. Superscript letters are also supported.

## Automatic Identification of Footnote Types

eXtyles can be set up to use a customer-specific list of phrases to identify various footnote types automatically with an `fn-type` attribute during export. This list might typically include equal contributions, current or previous addresses, membership of study groups, or information about data supplements.

This footnote:

```
†These authors contributed equally to this work. [Footnote]
```

gives this XML:

```
<fn id="fn1" fn-type="equal"><label>&dagger;</label><p>These
authors contributed equally to this work</p></fn>
```

This matching will work only if the key phrase included in the list used by eXtyles is found in the wording of the footnote. Contact [eXtyles-support@inera.com](mailto:exstyles-support@inera.com) if you would like to discuss setting up automatic identification of footnotes.

It is also possible to use a distinct paragraph style to identify particular classes of footnotes, such as conflicts of interest or financial disclosures. In this case, there is no restriction on the wording of the footnote. This option would be appropriate if it were necessary to apply an `fn-type` attribute to a class of footnotes that did not include any standard forms of words.

## Word Footnotes and Endnotes

Microsoft Word has its own built-in footnote and endnote functionality. However, text in Word footnotes and endnotes is not accessible to eXtyles processes such as Auto-Redact, Citation

Matching, and URL Checking. For this reason, by default, eXtyles NLM will flatten Word footnotes and endnotes to plain text and place them at the end of the document, styling them using the Footnote style defined in your configuration.

It can be necessary in certain workflows to retain Word footnotes and endnotes in the original Word format, for instance if your workflow involves printing to PDF from Word as well as exporting XML. Please email [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) if you would like to discuss this option. This does mean that the footnotes and endnotes will be inaccessible to Auto-Redact. Also, the footnotes and endnotes must be flattened to plain text by using Post-Processing Cleanup before exporting to XML.

## Keywords, Abbreviations, and Glossaries

eXtyles will automatically parse keywords, abbreviations, and glossary paragraphs to XML keyword groups or definition lists, according to certain standard editorial styles. In particular, they must be segmented consistently into their various elements.

### Keywords

Unless otherwise specified in your export filter, the strongest symbols to separate keywords are semicolons, em dashes, and bullets. These characters are highly unlikely to occur within the text of a single keyword. If eXtyles finds one of these characters within the keywords paragraph, it will use that character to separate the paragraph into individual keywords. If eXtyles fails to find either semicolons or bullets in the keyword paragraph, it will try weaker characters in an attempt to parse the list. These characters are tabs, em spaces, commas (followed by a space), and slashes with spaces on either side.

The following Word paragraph will be correctly processed during XML export:

**Keywords:** bone marrow-derived macrophages; dihydrofolate; site-directed mutagenesis.

to yield the following XML:

```
<kwd-group>
<title><bold>Keywords:</bold> </title>
<kwd>bone marrow-derived macrophages</kwd>
<kwd>dihydrofolate</kwd>
```

```
<kwd>site-directed mutagenesis</kwd>
</kwd-group>
```

eXtyles will also automatically parse specialized keyword vocabularies such as PACS, OCIS, or JEL codes.

## 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:

ExPEC, extra-intestinal pathogenic *Escherichia coli*; SSTI, skin and soft-tissue infection; UTI, urinary tract infection.

ExPEC — extra-intestinal pathogenic *Escherichia coli*: SSTI — skin and soft-tissue infection: UTI — urinary tract infection.

These various styles will yield the following XML:

```
<def-list list-type="simple" list-content="abbreviations">
  <def-item>
    <term>ExPEC</term>
    <def><p>extra-intestinal pathogenic <italic>Escherichia coli</italic></p></def>
  </def-item>
  <def-item>
    <term>SSTI</term>
    <def><p>skin and soft-tissue infection</p></def>
  </def-item>
```

```

<def-item>
  <term>UTI</term>
  <def><p>urinary tract infection</p></def>
</def-item>
</def-list>

```

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 abbreviations list would not be parsed correctly because a comma appears in the first definition:

**Abbreviations:** ExPEC, extra-intestinal, pathogenic *Escherichia coli*; UTI, urinary tract infection.

## Glossary

For the purposes of eXtyles, a "Glossary" is a multi-paragraph list with one term–definition pair per paragraph. This definition allows rather more flexibility in style. As with abbreviations, consistent use of a strong separator character is crucial to obtaining accurate XML. The following paragraphs would parse to give correct XML:

1. Term in bold

**ExPEC** Extra-intestinal pathogenic *Escherichia coli*

**SSTI** Skin and soft-tissue infection

**UTI** Urinary tract infection

2. Tab separating term and definition

ExPEC Extra-intestinal pathogenic *Escherichia coli*

SSTI Skin and soft-tissue infection

UTI Urinary tract infection

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

ExPEC: Extra-intestinal pathogenic *Escherichia coli*

SSTI: Skin and soft-tissue infection

UTI: Urinary tract infection

These various styles each yield the following XML:

```
<glossary>
<def-list>
<def-item>
<term>ExPEC</term>
<def><p>Extra-intestinal pathogenic <italic>Escherichia coli</italic></p></def>
</def-item>
<def-item>
<term>SSTI</term>
<def><p>Skin and soft-tissue infection</p></def>
</def-item>
<def-item>
<term>UTI</term>
<def><p>Urinary tract infection</p></def>
</def-item>
</def-list>
</glossary>
```

## Dates

In your eXtyles configuration, you may collect dates associated with the manuscript as part of the Document Information dialog. These dates will generally be incorporated directly into the article or book section metadata within the XML file on export.

However, dates associated with the publication process may also be included in the Word file to be rendered in print. Publishers may include dates associated with the manuscript history

in a single paragraph or in separate paragraphs. eXtyles will automatically identify received, revised, updated, and accepted dates, as well as various dates associated with online posting and publication, and apply the appropriate attribute to the date in the XML file. All of this identification can be done without any special markup in the Word file. The key to this process is the consistent use of wording to identify each date.

This first example has three date paragraphs, all styled as "Document\_Date":

Created: 1998-08-31

Updated: 2010-09-14

Revised: 2011-06-16

This example yields the following XML on export:

```
<history>
<date date-type="created"><day>31</day><month>08</
month><year>1998</year></date>
<date date-type="updated"><day>14</day><month>09</
month><year>2010</year></date>
<date date-type="revised"><day>16</day><month>06</
month><year>2011</year></date>
</history>
```

Alternatively, this single date paragraph:

Received 12 August 2011; Revised 24 October 2011; Accepted 25 October 2011

yields this XML:

```
<history>
<date date-type="received"><day>12</day><month>08</
month><year>2011</year></date>
<date date-type="rev-recd"><day>24</day><month>10</
month><year>2011</year></date>
<date date-type="accepted"><day>25</day><month>10</
month><year>2011</year></date>
```

```
</history>
```

eXtyles has some support for French and Russian date descriptions as well as English. For example, these paragraphs in Word:

Поступила в редакцию: 31.03.2011

Принята в печать: 11.10.2011

yield this XML:

```
<history>
```

```
<date date-type="received"><day>31</day><month>03</month><year>2011</year></date>
```

```
<date date-type="accepted"><day>11</day><month>10</month><year>2011</year></date>
```

```
</history>
```

Note that the JATS and NLM Book DTDs allow publication dates to be included within `<pub-date>` or `<history>` elements. If the former element is used, the type of date is specified by a `pub-type` attribute.

As can be seen from these examples, eXtyles automatically parses the date into day, month, and year elements. This process is most robust if months are spelled out as words or as abbreviations (both English and French month names are supported) and years are given as four digits. Dates given in the form XXXX-XX-XX (e.g. 2012-05-11) will be parsed as YYYY-MM-DD (i.e. 11th May not 5th November) (see the first example above). If months are given as digits (e.g. 12-08-2010 or 12-08-10), by default, eXtyles will identify the date as MM-DD-YY(YY) (i.e. U.S. date format; December 8th, 2010) and will warn that the date is ambiguous. It is possible to modify the export to omit the warning (if international date format is never encountered) or to treat the international date format [i.e. DD-MM-YY(YY)] as the default (see the Russian example above). Contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you have questions about date formats.

The character used to separate the various elements of the date is reasonably flexible: slashes, colons, hyphens, or periods all enable dates to parse correctly.

If particular dates are not available at the time that the XML is exported, eXtyles will allow either X (e.g. XX-XX-XXXX) or two or more Ys, Ms, and Ds (e.g. MM-DD-YYYY) as placeholders that can later be replaced in the XML once the date is known.

## Hyperlinks

In a standard eXtyles configuration, hyperlinks in the Word file will be exported automatically as hyperlinks in the XML:

Word: **<http://www.inera.com>**

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:

Word: **Inera website**

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

If you require eXtyles to support distinct display text and target URLs in the XML output, contact **[exstyles-support@inera.com](mailto:exstyles-support@inera.com)**.

## 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. See the following example of a nested list:

- Extrapyramidal dysfunction, including one or more of the following: [Bullet List 1]
  - » Dystonia [Bullet List 2]
  - » Rigidity [Bullet List 2]
  - » Choreoathetosis [Bullet List 2]

- Onset [Bullet List 1]
  - » **Classic form.** Usually in first decade of life [Bullet List 2]
  - » **Atypical form.** More commonly in the second or third decade of life [Bullet List 2]
- Loss of ambulation [Bullet List 1]
  - » **Classic form.** Often occurring within ten to 15 years of onset [Bullet List 2]
  - » **Atypical form.** Often occurring within 15 to 40 years of onset [Bullet List 2]

which would yield the XML shown on the facing page (note that the XML has been indented for presentation purposes to make it easier to follow).

Note that the level-1 list L1 is not closed when the first of the level-2 list starts, and in the XML lists L2, L3, and L4 are nested within list L1:

```

<list id="L1" list-type="bullet">
  <list-item><p><b>Extrapyramidal dysfunction,</b> including
  one or more of the following:</p>
  <list id="L2" list-type="bullet">
    <list-item><p>Dystonia</p></list-item>
    <list-item><p>Rigidity</p></list-item>
    <list-item><p>Choreoathetosis</p></list-item>
  </list>
  </list-item>
  <list-item><p>Onset</p>
  <list id="L3" list-type="bullet">
    <list-item><p><b>Classic form.</b> Usually in first
    decade of life</p></list-item>
    <list-item><p><b>Atypical form.</b> More commonly in
    the second or third decade of life</p></list-item>
  </list>

```

```

</list-item>

<list-item><p>Loss of ambulation</p>

<list id="L4" list-type="bullet">

    <list-item><p><b>Classic form.</b> Often occurring
    within ten to 15 years of onset</p></list-item>

    <list-item><p><b>Atypical form.</b> Often occurring
    within 15 to 40 years of onset</p></list-item>

</list>

</list-item>

</list>

```

By default, eXtyle does not include a `<label>` element containing the bullet character for bulleted lists (compare the numbered list shown below). Contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you need the bullet character to be exported as part of the XML.

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. Also, 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. See the following example:

1. rs1799759 has variation as `-/ACCAT`, and rs3832852 has the variation as `-/CCATA`. If you put the variation in flanking context, the two different chromosome sequences are: [Numbered/Bullet\_List Level 1]

```
rs1799759 (-/ACCAT)
```

```
C-----AG
```

```
CACCATAG
```

```
rs3832852 (-/CCATA)
```

```
CA-----G
```

```
CACCATAG
```

```
[Preformatted]
```

The deleted sequences above for the two refSNPs are shifted one base, so they remain separate SNPs. Currently in dbSNP, we do not have validation (freq or genotype) information for either of these two SNPs. [List Continued Level 1]

2. rs3832850 and rs35904656 are 5 bases apart in mapping, and are therefore distinct SNPs. [Numbered/Bullet\_List Level 1]

which would yield this XML (note that <break/> represents the line-break character, which is retained in the <preformat> element):

```
<list id="L1" list-type="order">
<list-item><label>1</label><p>rs1799759 has variation as -/ACCAT,
and rs3832852 has the variation as -/CCATA. If you put the
variation in flanking context, the two different chromosome
sequences are:</p>
<preformat>rs1799759 (-/ACCAT)<break/>C-----AG<break/>CA
CCATAG<break/><break/>rs3832852 (-/CCATA)<break/>CA-----
G<break/>CACCATAG<break/></preformat>
<p>The deleted sequences above for the two refSNPs are shifted
one base, so they remain separate SNPs. Currently in dbSNP,
we do not have validation (freq or genotype) information for
either of these two SNPs.</p></list-item>
<list-item><label>2</label><p>rs3832850 and rs35904656 are 5
bases apart in mapping, and are therefore distinct SNPs.</p></
list-item>
```

## 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 - Bullet list - Bullet list	1. Number list style 2. Number list style 3. Number list style

Depending on your configuration, lists in boxes may require their own distinct paragraph styles to avoid closing the box in the XML file.

Tables that have no caption (typically used to align two or more columns of information) can be included in lists without special modification. "Floating" items, such as figures, tables, or

boxes, should not be placed within lists in the Word file unless your configuration includes specific provision for them to be placed there.

It is possible to interrupt a numbered list with, say, a heading and then continue the list without restarting the numbering at "1". This requires use of the **List Continued** tag, described later in this section in the discussion of the **Insert Tag** menu. This tag is not included in eXtyles by default; contact [extyles-support@inera.com](mailto:extyles-support@inera.com) if you think it is likely that you will need this feature.

## Sponsors/Funders in Acknowledgments

In JATS or NLM XML export configurations, eXtyles can be set up to provide two Word character styles that support tagging of funding source and award number information for acknowledgment of grant-funded research support. In the following example, the character styles "Contract Sponsor" (orange shading) and "Contract Number" (green shading) have been applied to their respective items:

This work was funded by the European Community (NATT HEALTH-F3-2008-222965) and the UK Medical Research Council (programme number U1175 32056).

which results in the following XML in the <article-meta> or <book-part-meta> element when exporting to JATS 1.0 or version 3.0 of the NLM Book or Journal Publishing DTD:

```
<funding-group>
  <award-group id="sp1">
    <funding-source>European Community</funding-source>
    <award-id>NATT HEALTH-F3-2008-222965</award-id>
  </award-group>
  <award-group id="sp2">
    <funding-source>UK Medical Research Council</funding-source>
    <award-id>U1175 32056</award-id>
  </award-group>
</funding-group>
```

and the following XML for the Acknowledgments section:

```
<p>This work was funded by the <funding-source
rid="sp1">European Community</funding-source> (<award-id
rid="sp1">NATT HEALTH-F3-2008-222965</award-id>) and the
<funding-source rid="sp2">UK Medical Research Council</funding-
source> (programme number <award-id rid="sp2">U1175 32056</
award-id>).</p>
```

According to version 2.3 of the Journal or Book DTD, the following XML is generated in <article-meta> or <book-part-meta>:

```
<contract-num id="sp1">NATT HEALTH-F3-2008-222965</contract-num>

<contract-num id="sp2">U1175 32056</contract-num>

<contract-sponsor id="sp1">European Community</contract-sponsor>

<contract-sponsor id="sp2">UK Medical Research Council</
contract-sponsor>
```

and the following XML for the Acknowledgments section:

```
<p>This work was funded by the <contract-sponsor
rid="sp1">European Community</contract-sponsor> (<contract-num
rid="sp1">NATT HEALTH-F3-2008-222965</contract-num>) and the
<contract-sponsor rid="sp2">UK Medical Research Council</
contract-sponsor> (programme number <contract-num
rid="sp2">U1175 32056</contract-num>).</p>
```

During export, eXtyles links a funding source with any award numbers that it encounters before the next funding source. This means that if an award number appears before eXtyles has encountered a funding source, it will cause a parsing error. The number must be placed after the funding source to achieve correct linking. eXtyles also supports having multiple award numbers marked for a single funding source.

## FundRef

The eXtyles NLM/JATS export filter also supports FundRef IDs that are placed in funding or acknowledgment paragraphs of the Word file. FundRef is a CrossRef initiative that provides a standardized way to report funding sources for scholarly publications. By including standardized funding information in the publication XML, funders, researchers, and publishers can more easily discover how funds are being used.

While FundRef provides standardization for funding information, FundRef support in XML means you don't have to include the funder ID in the printed publication; the funder id is hidden under the name of the funding agency.

A combination of Word hyperlink and eXtyles character styles are used to properly set up FundRef IDs in the document. The funder name is converted into a Word hyperlink, where the funder name is the visible text of the link and the FundRef ID is the actual hyperlink. Then, the orange character style "Contract Sponsor" is applied to the hyperlink. In the following example, the text "National Institute of Mental Health" is a hyperlink to the FundRef id "http://dx.doi.org/10.13039/100000025" and is styled with the "Contract Sponsor" character style:

Acknowledgments: Research funded by [National Institute of Mental Health](http://dx.doi.org/10.13039/100000025) (MH078111, MH078143, MH059490).

and the contract numbers are styled with the character style Contract Number.

According to version 1.0 of the JATS DTD, the following XML is generated in <article-meta>:

```
<funding-group><award-group>
  <funding-source id="sp1">National Institute of Mental
  Health<named-content content-type="funder-identifer"> http://
  dx.doi.org/10.13039/100000025</named-content></funding-source>
  <award-id rid="sp1">MH078111</award-id>
  <award-id rid="sp1">MH078143</award-id>
  <award-id rid="sp1">MH059490</award-id>
</award-group>
</funding-group>
```

and the following XML for the Acknowledgments section:

```
<p>Acknowledgments: Research funded by <funding-source
rid="sp1">National Institute of Mental Health<named-
content content-type="funder-identifer">http://dx.doi.
org/10.13039/100000025</named-content></funding-source>
(<award-id rid="sp1">MH078111</award-id>, <award-id
rid="sp1">MH078143</award-id>, <award-id rid="sp1">MH059490</
award-id>).</p>
```

In version 1.1 of JATS, the XML in <article-meta> is:

```

<funding-group><award-group>
<funding-source id="sp1">
<institution-wrap>
<institution>National Institute of Mental Health</institution>
<institution-id institution-id-type="DOI"> http://dx.doi.
org/10.13039/100000025</institution-id>
</institution-wrap>
</funding-source>
<award-id rid="sp1">MH078111</award-id>
<award-id rid="sp1">MH078143</award-id>
<award-id rid="sp1">MH059490</award-id>
</award-group>
</funding-group>

```

and similarly the institution-wrap element is used in the funding-source in the acknowledgment.

If your organization is interested in adding FundRef ids to your XML, please contact us at [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com).

## Figure, Table, and Box Captions

It is not generally necessary to have separate paragraph styles for the number of the figure, table, or box and the rest of the caption. 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.

For example, this paragraph in the Figure\_Caption style:

Figure 8: Government social spending in China (percent of GDP)

would yield this XML:

```
<fig id="f8" position="float" fig-type="figure">
<label>Figure 8</label>
<caption><title>Government social spending in China (percent
of GDP)</title></caption>
```

If you need additional terms to be recognized as the label for a figure, table, or box (e.g. "Photo", "Case"), please contact Inera at [exstyles-support@inera.com](mailto:exstyles-support@inera.com) to arrange for these terms to be added to your configuration.

## Figures

eXtyles has a paragraph style for figure captions. Whenever the XML export encounters a figure caption that starts with a figure number (e.g. "Figure 1"), it will automatically insert a `<graphic>` element in the XML. The file pointer in the graphic element will follow the naming conventions set up at configuration. The most common format for journals is **articleID-f1**.

For this example:

Figure 8: Government social spending in China (percent of GDP) [Figure\_Caption]

Sources: Asian Development Bank and US Bureau of Economic Analysis [Figure\_Source]

the full XML output would be:

```
<fig id="f8" position="float" fig-type="figure">
<label>Figure 8</label>
<caption><title>Government social spending in China (percent
of GDP)</title></caption>
<graphic xlink:href="9388_007-f8"></graphic>
<attrib>Sources: Asian Development Bank and US Bureau of
Economic Analysis</attrib>
</fig>
```

when the article ID from the Document Information dialog is "9388\_007".

Default naming conventions are also in place for plates and schemes; plates will be named, for example, **articleID-p1** and schemes **articleID-s1**.

For cases where a figure caption does not have a figure number (e.g. a picture in a book introduction or a journal obituary), the naming system is slightly modified by eXtyles: for example, instead of "f1", an ID of "fa" might be used, e.g. **articleID-fa**, **articleID-fb**, etc. For example, the following paragraph in Figure\_Caption style:

RMB exchange rates

yields this XML:

```
<fig orientation="portrait" fig-type="figure" position="float"
id="fa">

<caption><title>RMB exchange rates</title></caption>

<graphic position="float" xlink:href="9388_007-fa"></graphic>

</fig>
```

All of these default naming schemes can be overridden at the configuration stage. Please contact [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) to discuss custom naming schemes for display items.

For information on inserting graphics that have no caption, see the section on the **Insert Tag Menu**.

By default, the file type extension is not included in the XML. This is because many publishing environments have multiple versions of each image in different formats and resolutions, and the rendering environment (e.g. Typéfi, transform for HTML) will select the correct version and set the final filename based on the requirements of the target rendering.

## Figure Caption Location in the Word File

Figure captions for numbered figures may be located in the Word file either at the end of the file, or just after the paragraph where each figure is first cited. In either situation, eXtyles will correctly place the figure in the XML file as set up in your configuration.

In the case of unnumbered (such as the previous example) and/or uncited 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 either XHTML or CALS format in the XML file, depending on how your configuration is set up. If the weight and/or style of table borders is significant in your XML and/or you need to support table shading in the XML, we recommend using the XHTML table model, as it has stronger support for borders and shading. By default, eXtyles does not retain shading on export; contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you need to add support for Word shading in tables.

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). Note that eXtyles supports the use of the decimal tab in Word tables, as well as left- and right-aligned and centered content.

## Alignment

This relatively simple table has been set up with the headings of columns 2 and 3 centered and with the contents of column 1 left aligned, column 2 centered and column 3 aligned on a decimal tab. The cells in the top row carry the Table\_Head style, while the other rows are styled as Table\_Body.

<b>Strain</b>	<b>G+C content (mol%)</b>	<b>Similarity (%)</b>
A-123	68.4	100
45720	70.1	90.3
NCIMB 2053	54.0	8.1

This yields the following XML (with tables exported as XHTML):

```
<table frame="hsides" rules="groups">
  <col width="27.12%"/>
  <col width="41.94%"/>
```

```

<col width="30.94%"/>

<tbody>

<tr>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt" scope="row">Strain<hr/></td>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt">G+C content (mol%)<hr/></td>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt">Similarity (%)<hr/></td>

</tr>

<tr>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt" scope="row">A-123<hr/></td>

<td valign="top" align="center" style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">68.4<hr/></td>

<td valign="top" align="char" char="." style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">100<hr/></td>

</tr>

<tr>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt" scope="row">45720<hr/></td>

<td valign="top" align="center" style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">70.1<hr/></td>

```

```

<td valign="top" align="char" char="." style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">90.3<hr/></td>

</tr>

<tr>

<td valign="top" align="left" style="border-left: solid 0.50pt;
border-top: solid 0.50pt; border-right: solid 0.50pt; border-
bottom: solid 0.50pt" scope="row">NCIMB 2053</td>

<td valign="top" align="center" style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">54.0</td>

<td valign="top" align="char" char="." style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">8.1</td>

</tr>

</tbody></table>

```

The cells in column 1 have the attribute `align="left"` and those in column 2 have `align="center"`. The cells in column 3 have the attribute `align="char"` (i.e. align on a specific character), and they have the additional attribute `char="."` (i.e. align on the period, used here as a decimal point).

The JATS and NLM Book DTDs support table cell contents aligned on other characters, for example the plus/minus sign in a column of means $\pm$ errors (i.e. other values of the `char` attribute are allowed, such as `char="&plusmn;"`). However, Word supports alignment only on the first non-letter, non-digit character.

Note that the XML has also inherited the vertical cell alignment set in Word (`valign="top"`). CSS attributes for table borders and shading are also included in the XML. These can be seen in the previous example as the contents of the `style` attribute of the `<td>` element.

## Shading

If shading is used in a table, as in this example:

$r(Y)$	$Y^2$	$Y$
$\phi_m$ (for $\eta_{\text{high}}$ )	2.10	2.10

$\phi$ (for $\eta_{\text{limit}}$ )	20.5	21.0
-------------------------------------	------	------

the shading is represented as shown in the following XML when exporting with XHTML tables (to save space, the XML in this example represents the second row of the table only):

```
<tr>
  <td valign="top" align="left" style="border-left: solid
  0.50pt; border-top: solid 0.50pt; border-right: solid 1.50pt"
  scope="row">&#x03C6;<sub>m</sub> (for &#x03B7;<sub>high</sub></td>
  <td valign="top" align="center" style="border-left: solid
  1.50pt; border-top: solid 1.50pt; border-right: solid 1.50pt;
  border-bottom: solid 1.50pt; background-color:rgb(217,217,217)">2
  .10</td>
  <td valign="top" align="center" style="border-left: solid
  1.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
  border-bottom: solid 1.50pt">21.0</td>
</tr>
<tr>
```

## Table and Column Widths

Table width can be represented in the XML using processing instructions (see Typefi Tags section) or as an absolute measurement. eXtyle can detect the absolute width of the table as it appears in Word and pass through the width to the XML export in whatever unit fits your workflow needs (e.g., inches, centimeters, points, etc.). Column widths can be calculated as percentages of the total width of the table or as absolute units of measurement. The following example illustrates a landscape table whose width is represented in as an absolute width in points and whose column widths are represented as percentages:

<b>r(Y)</b>	<b>Y<sup>2</sup></b>	<b>Y</b>
$\phi_m$ (for $\eta_{\text{high}}$ )	2.10	2.10
$\phi$ (for $\eta_{\text{limit}}$ )	20.5	21.0

```
<table-wrap id="tab_a" orientation="landscape"
position="float">
  <table width="179">
```

```

<col width="55.94%"/>
<col width="22.03%"/>
<col width="22.03%"/>
<thead>
<tr>
<th valign="top" align="justify" scope="col" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">r(Y)</th>
<th valign="top" align="justify" scope="col" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">Y2</th>
<th valign="top" align="justify" scope="col" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">Y</th>
</tr>
</thead>
<tbody>
<tr>
<td valign="top" align="justify" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt" scope="row">&#x03D5;m (for &#x03B7;high)</td>
<td valign="top" align="justify" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">2.10</td>
<td valign="top" align="justify" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">2.10</td>
</tr>
<tr>
<td valign="top" align="justify" style="border-left: solid 0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt; border-bottom: solid 0.50pt">2.10</td>

```

```
border-bottom: solid 0.50pt" scope="row">&#x03D5; (for
&#x03B7;limit)</td>

<td valign="top" align="justify" style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">20.5</td>

<td valign="top" align="justify" style="border-left: solid
0.50pt; border-top: solid 0.50pt; border-right: solid 0.50pt;
border-bottom: solid 0.50pt">21.0</td>

</tr>

</tbody></table></table-wrap>
```

## Cell Idents

Note that the column widths can be omitted from the output XML.

If a paragraph indent is used within a table cell, it is reflected in the XML on export; this allows great control over the arrangement of the table cell contents. Exactly how the indent is represented depends on your configuration. In the following table, the cell contents have been aligned using a first-line indent of 0.5 cm. In this configuration, the paragraph indent is represented in the output XML by a variable number of non-breaking spaces (one for every 0.1 cm):

$r(Y)$	$Y_2$	$Y$
$\varphi_m$ (for $\eta_{high}$ )	2.10	2.10
$\varphi$ (for $\eta_{limit}$ )	20.5	21.0

This example is represented by the following XML, exported in CALS format:

```
<table frame="topbot">
  <tgroup cols="3">
    <colspec colnum="1" colname="col1" colwidth="146"/>
    <colspec colnum="2" colname="col2" colwidth="129"/>
    <colspec colnum="3" colname="col3" colwidth="129"/>
  <tbody>
```



## Cell Idents

Note that the column widths can be omitted from the output XML.

If a paragraph indent is used within a table cell, it is reflected in the XML on export; this allows great control over the arrangement of the table cell contents. Exactly how the indent is represented depends on your configuration. In the following table, the cell contents have been aligned using a first-line indent of 0.5 cm. In this configuration, the paragraph indent is represented in the output XML by a variable number of non-breaking spaces (one for every 0.1 cm):

$r(Y)$	Y2	Y
$\varphi_m$ (for $\eta_{\text{high}}$ )	2.10	2.10
$\varphi$ (for $\eta_{\text{limit}}$ )	20.5	21.0

## Row Headers

While row headers that appear mid-table is supported by eXtyle, the JATS DTD does not include a way to indicate that a row is a heading row when in mid-table. However, there is a "more correct" way to do this JATS. Simply style the mid-table heading rows with the Table Column Head style. This style forces a new <table> element within the <table-wrap> element. For example, the following table:

**Table 1. This is a table title**

<b>Head 1</b>	<b>Head 1a</b>	<b>Head 1b</b>
Body 1	Body 1a	Body 1b
<b>Head 2</b>	<b>Head 2a</b>	<b>Head 2b</b>
Body 2	Body 2a	Body 2b

yields this XML:

```
<table frame="hsides" rules="groups">
<thead>
<tr>
<th valign="top" align="left" scope="col">Head 1</th>
<th valign="top" align="left" scope="col">Head 1a</th>
```

```
<th valign="top" align="left" scope="col">Head 1b</th>
</tr>
</thead>
<tbody>
<tr>
<td valign="top" align="left" scope="row">Body 1</td>
<td valign="top" align="left">Body 1a</td>
<td valign="top" align="left">Body 1b</td>
</tr>
</tbody>
</table>
<table frame="hsides" rules="groups">
<thead>
<tr>
<th valign="top" align="left" scope="col">Head 2</th>
<th valign="top" align="left" scope="col">Head 2a</th>
<th valign="top" align="left" scope="col">Head 2b</th>
</tr>
</thead>
<tbody>
<tr>
<td valign="top" align="left" scope="row">Body 2</td>
<td valign="top" align="left">Body 2a</td>
<td valign="top" align="left">Body 2b</td>
</tr>
```

```

</tbody>
</table>
</table-wrap>

```

## Table and Box Location in the Word File

Numbered tables and boxes may be located in the Word file either at the end of the file, or just after the paragraph where the item is first cited. In either situation, eXtyles will correctly place the table or box in the XML file as set up in your configuration.

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

## Overriding Cited Figure, Table, and Box Placement in the XML

By default, labeled figures, tables, and boxes are moved to immediately after the paragraph in which they are first cited, as described in the previous sections, “Figure Caption Location in the Word File” and “Table and Box Location in the Word File.”

You can override this behavior by using the **cite\_fig\_nomove**, **cite\_tbl\_nomove**, and **cite\_box\_nomove** character styles. For example, if Table 8 is mentioned in the Introduction of your manuscript, and you do not actually want to put Table 8 just after that paragraph, you can apply **cite\_tbl\_nomove** to the citation in the Introduction paragraph. The citation in the Introduction will still be converted to a link in the XML, but the table will be moved to where it is next cited in the document (for example, following the paragraph in which the next Table 8 citation with **cite\_tab** applied is located).

These character styles should be manually applied after running Citation Matching. If these character styles are not currently included in your configuration, please contact eXtyles Support.

## Appendices

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").

Depending on your eXtyles configuration, appendices may require distinct heading and paragraph styles. In these cases, if regular heading or paragraph styles are used inside an appendix, this may lead to a parsing error or to incorrect XML.

## Supplementary Material

Supplementary material can take many different forms and can be cited within a publication in many different ways. As such, there are many different ways to style and tag supplementary material with eXtyles.

If the entire supplement has a title, this should be styled as “Supplementary\_Material\_Head.” The caption for each individual supplementary file should be styled using “Supplementary\_Material\_Caption.” The caption for each supplementary file may be followed by file details to be pulled into the XML, such as mimetype or ID. The “Supplementary\_Material\_File\_Information” paragraph style should be applied to a single paragraph containing one or more file details, each separated by a soft return. These file details are automatically pulled into the XML as attributes and values of the supplementary item.

If you have some text in the supplement that is not associated with a specific supplementary file, it should be styled as “Supplementary\_Material.”

In the following example, the Supplementary\_Material\_Head style is applied to the title of the supplement, while the Supplementary\_Material\_Caption is applied to the caption or description of the supplementary file. The Supplementary\_Material\_File\_Information style is applied to the paragraph containing multiple details for that file, each detail separate by a soft return:

Supplementary\_Material\_Head  
Supplementary\_Material\_Caption  
Supplementary\_Material\_File\_Information

**CPD for pharmacists¶**  
This article has a Continuing Professional Development activity for pharmacists available.¶  
file: testpdf.pdf↵  
mimetype: application/pdf↵  
mime-subtype: application/pdf↵  
content-type: application/pdf↵  
doi: 10.1234/5678↵  
image: image.png¶

Note that the file information is formatted according to the following format:

attribute: attribute value

When the document is exported to XML, eXtyles uses this format to parse the specific file details and convert them into the correct attribute and value in the XML.

The above example yields the following XML:

```
<title>Supplementary Material</title>
<supplementary-material>
  <caption><p>This article has a Continuing Professional
  Development activity for pharmacists available.</p></caption>
  <media xlink:href="testpdf.pdf" mimetype="application/pdf"
  mime-subtype="application/pdf" content-type="application/pdf">
  <object-id pub-id-type="doi">10.1234/5678</object-id></media>
  <graphic xlink:href="image.png"/>
</supplementary-material>
```

Note that different attributes defined in the Word document are automatically tagged according to the type of information. The text "mime-type: application/pdf" is converted to an attribute in the media element, while the text "doi: 10.1234/5678" is tagged as an <object-id>.

**Note:** The `Supplementary_Material_Caption` and `_File_Information` styles are designed to be used together. While either style can be used without the other, they each require the presence of the `Supplementary_Material_Head` style to enable the correct placement of uncited supplements in the XML.

Supplementary material is generally placed in a section element <sec sec-type="supplementary-materials"> at the end of the <body> section. However, supplementary material may also be placed in the <app> or <notes> element in the <back> section of the exported XML. Supplements may also be cited in the body of the document. In that case, supplements can be placed after the point at which the supplement is first cited in the XML instead of being anchored, just like a cited table or figure.

**Note:** Supplements may be both cited in the document and placed in the <back> section of the exported XML. Please contact [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) if you would like supplementary material to always be placed in the <back> content of your XML.

In the following example, a supplementary video has been cited in the body of the article, and the file information has been included:

HeadingB

Paragraph

Supplementary\_Material\_Caption

#### Acute Phase¶

Based on the evaluation findings (Video 31.1), the physical therapist can develop goals and a plan of care specific to each patient's needs and limitations.¶

**Video 31.1.** Ferkel RD: Subtalar Arthroscopy, in: Tasto JP: Video: Surgical Techniques in Orthopaedics: Principles in Arthroscopy. Rosemont, IL, American Academy of Orthopaedic Surgeons, 2003.¶

This results in the following XML:

```
<title>Acute Phase</title>

<p>Based on the evaluation findings (<xref ref-
type="supplementary-material" rid="J123-vid31.01">Video
31.1</xref>), the physical therapist can develop goals and
a plan of care specific to each patient's needs and
limitations.<xref ref-type="bibr" rid="J123-r3"><sup>3</sup></
xref><sup>,</sup><xref ref-type="bibr" rid="J123-r4"><sup>4</
sup></xref></p>

<media id="J123-vid31.01" xlink:href="http://orthoportal.
aaos.org/ebooks/video.aspx?id=EMEDIA-ABC-123-123-2014-vid01"
xlink:role="media-player-id" content-type="play-in-place"
mimetype="video" mime-subtype="mp4"><label>Video 31.1</
label><caption><p>Ferkel RD: Subtalar Arthroscopy, in Tasto
JP: Video: Surgical Techniques in Orthopaedics: Principles in
Arthroscopy. Rosemont, IL, American Academy of Orthopaedic
Surgeons, 2003.</p></caption>

<object-id pub-id-type="other" content-type="media-stream-
id">AOE-01-031-13-vid01.mp4</object-id>

</media>
```

**Note:** The destination URL in this example (`xlink:href="http://orthoportal.aaos.org/ebooks/video.aspx?id=EMEDIA-ABC-123-123-2014-vid01"`) is not included in the Word document. File information may be defined in your export filter as default information that is always included in the supplementary material XML. Please contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you would like to define default values for supplementary files.

## Reference Lists

In a standard eXtyles NLM XML export, a reference list can contain a single title paragraph and references only.

Additional paragraph styles can be used to tag introductions to a reference list or annotation paragraphs for a specific reference. The "Reflist\_Introduction" style may be used to style one or more paragraphs after a reference head and before the start of a reference list that introduce the reference list. It may not be used at any other location in a reference list. This differs from "Reference\_Annotation" which is used to give additional information about specific references (typically in Review articles).

If you need to subdivide a reference list with subheadings, introduce the list with a paragraph of text, or add annotations to explain the significance of particular references, you will require additional paragraph styles and alterations to the export filter; please contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com).

## Special Article XML Preparation

Documents that have a relationship to other content (book reviews, letters, replies, errata) or containing verse require additional handling to take full advantage of eXtyles processing and export.

### Book Reviews

A book review manuscript should be activated with the Article Type specified as "book review" in the Document Information dialog. Once the document is activated, the bibliographic information for the reviewed work should be split into three paragraphs, one each for the reviewed work author, reviewed work title, and reviewed work publication information. These paragraphs should be styled with the styling palette using the "Book Review - Book Authors", "Book Review - Book Title", and "Book Review - Book Information" buttons on the Front tab, respectively (or their equivalents in your eXtyles configuration).

The following three paragraphs demonstrate styled and processed book review paragraphs (the style names are given in brackets). Note that character styles corresponding to author first name and author surname have been applied to the reviewed work's author during the advanced process Author Processing.

**Richard Heller, Brian Jones** [Book\_Review\_Authors]

Evidence for population health [Book\_Review\_Title]

New York (NY): Oxford University Press; 2005. 126 pages; ISBN 0-19-852974-0; price: £19.95 [Book\_Review\_Info]

This example yields the following XML:

```
<product product-type="book">
  <person-group person-group-type="author">
    <name><surname>Heller</surname><given-names>Richard</given-names></name>
```

```

<name><surname>Jones</surname><given-names>Brian</given-names></
name>

</person-group>

<source>Evidence for population health</source>

<year>2005</year>

<publisher-loc>New York (NY)</publisher-loc>

<publisher-name>Oxford University Press</publisher-name>

<year>2005</year>

<size units="page">126 pages</size>

<isbn>0-19-852974-0</isbn>

<price>&pound;19.95</price>

</product>

```

Note that eXtyles has automatically parsed the content of the Book\_Review\_Info paragraph into sub-elements during export. This part of the XML should be reviewed to confirm that the sub-elements have been identified correctly; please alert Inera at [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) if this information is misparsed.

## Errata

An erratum manuscript should be activated with the Article Type specified as "correction" and the Related Article Type specified as "corrected-article" in the Document Information dialog.

In the body of the document, include a paragraph containing a reference to the article being corrected. This reference paragraph should be styled with the button labeled "Related Article" (in most configurations) on the paragraph styling palette. After the Bibliographic References process has been run, the related article paragraph will be parsed in the same manner as a paragraph in an article's reference list. If a PMID or DOI for the original article can be identified, links will be added during those advanced processes.

```

<jrn>Clum A, Tindall B, Sikorski J, Ivanova N, Mavromatis K, Lucas S, Glavina
Del Rio T, Nolan M, Chen F, Tice H, et al. Complete genome sequence of Pirellula
staley type strain (ATCC 27377T). Standard Genomic Sci 2009; 1: 308-316.
doi:10.4056/sigs.51657</jrn>

```

When exported, this example yields the following XML:

```
<related-article related-article-type="corrected-article"
id="ra1" journal-id="Standard Genomic Sci" vol="1" page="308"
xlink:href="10.4056/sigs.51657" ext-link-type="doi"></related-
article>
```

## Letter to the Editor with Related Article

A letter to the editor submitted in response to a published article should be activated with the Article Type specified as "letter" and the Related Article type specified as "commentary-article".

In the body of the letter, a paragraph containing the reference to the article being commented on should be included, and it should be styled with the button labeled "Related Article" on the Front tab of the paragraph styling palette. After the Bibliographic References process has been run, the related article paragraph will be parsed in the same manner as a paragraph in an article's reference list. If a PMID or DOI for the original article can be identified, links will be added during those advanced processes.

```
<jrn>Vuitton DA, Zhou H, Bresson-Hadni S, Wang Q, Piarroux M, Raoul F, et
al. Epidemiology of alveolar echinococcosis with particular reference to China
and Europe. Parasitology 2003; 127(Suppl): S87-107. PubMed http://dx.doi.
org/10.1017/S0031182003004153</jrn>
```

This example yields the following XML:

```
<related-article related-article-type="commentary-article"
id="ra1" journal-id="Parasitology" vol="127" page="S87"
xlink:href="10.1017/S0031182003004153" ext-link-type="doi"></
related-article>
```

## Letters to the Editor with Reply

A document containing both a letter to the editor and a reply letter should be activated as in the preceding section, "Letter to the Editor with Related Article" (i.e. the Article Type specified as "letter" and the Related Article type specified as "commentary-article"), and should have the related article's reference handled similarly. The article ID of the letter to the editor should be specified as the Article ID in the Document Information Dialog.

Because the letter and reply are separate items, you must add a tag from the eXtyle Insert Tag menu that marks the boundary between the two items. To insert the **<reply>** tag, place

the cursor just before the first start of the reply and select **Reply** from the eXtyle Insert Tag menu (if this tag is available).

If the reply does not have an ID that differs from the letter, you do not need to make any further change to the tag. However, if the reply has an ID that is different from the letter, the ID should be typed between the tags `<reply>` and `</reply>`, as shown later in this section.

If a letter is accompanied by more than one reply, you just need to add the `<reply>` tag at the start of each additional reply.

If a reply is part of the same Word (and XML file) as the letter, no related article paragraph need be used for the reply. However, if it is published in a separate XML file, then a related article paragraph must be set up in the same manner as shown previously for the letter.

The following paragraphs form a model of a Word file containing a letter and a reply:

```
<jrn>Smith J. Article title of original item. Inera Med J. 2006;56:45-8.</jrn>
[Related Article]
```

### **Letter to the Editor**

Dear Editor,

I take issue with the article published in volume 56, page 45, of your publication.

**Bruce Rosenblum**

Inera Inc.

```
<reply>LE54321</reply>Dear Correspondent:
```

I hereby reply to your letter.

**Liz Blake**

Inera Inc.

The XML generated from this document would include the following (note that some of the document metadata tags have been omitted from this example):

```
<article>
```

```
<front>
```

```
<article-meta>
```

```

<title-group>
<article-title>Letter to the Editor</article-title>
</title-group>
<contrib contrib-type="author">
<name name-style="western"><surname>Rosenblum</surname><given-
names>Bruce</given-names></name>
</contrib>
<aff id="aff-1-1">Inera Inc.</aff>
</contrib-group>
<related-article page="45" vol="56" journal-id="Inera Med J."
id="ra1" related-article-type="commentary-article"></related-
article>
</article-meta>
</front>
<body>
<p>Dear Editor,</p>
<p>I take issue with the article published in volume 56, page
45, of your publication.</p>
</body>
<response xml:lang="en" id="sa1" response-type="reply">
<front>
<article-meta>
<article-id pub-id-type="publisher-id">LE54321</article-id>
<title-group>
<article-title></article-title>
</title-group>
<contrib-group>

```

```

<contrib contrib-type="author">

<name name-style="western"><surname>Blake</surname><given-
names>Liz</given-names></name>

</contrib>

<aff id="aff-2-1">Inera Inc.</aff>

</contrib-group>

</article-meta>

</front>

<body>

<p>Dear Correspondent:</p>

<p>I hereby reply to your letter.</p>

</body>

</response>

</article>

```

## Alternate Forms for the `<related-article>` Element

Note that the `<related-article>` element can be represented in two ways, depending on your eXtyles configuration. In the previous example, the article details are given in a number of attributes of the `<related-article>` tag:

```

<related-article page="45" vol="56" journal-id="Inera Med J."
id="ra1" related-article-type="commentary-article"></related-
article>

```

The alternative is for the related article to be represented by the full contents of the Related\_ Article paragraph, as shown in the next example:

```

<jrn>Vuitton DA, Zhou H, Bresson-Hadni S, Wang Q, Piarroux M, Raoul F, et
al. Epidemiology of alveolar echinococcosis with particular reference to China and
Europe. Parasitology. 2003; 127(Suppl): S87–107.</jrn>

```

would yield this XML:

```

<related-article id="ra1" related-article-type="commentary-
article">

<string-name><surname>Vuitton</surname> <given-names>DA</
given-names></string-name>, <string-name><surname>Zhou</
surname> <given-names>H</given-names></string-name>, <string-
name><surname>Bresson-Hadni</surname> <given-names>S</
given-names></string-name>, <string-name><surname>Wang</
surname> <given-names>Q</given-names></string-name>, <string-
name><surname>Piarroux</surname> <given-names>M</given-names></
string-name>, <string-name><surname>Raoul</surname> <given-
names>F</given-names></string-name>, <etal/>

<article-title>Epidemiology of alveolar echinococcosis with
particular reference to China and Europe.</article-title>

<source>Parasitology</source>. <year>2003</year>;

<volume>127</volume><(supplement>Suppl</supplement>):

<fpage>S87</fpage>&#x2013;<lpage>107</lpage>.

<pub-id pub-id-type="pmid">15027607</pub-id></related-article>

```

## Poems

Poetry may appear in any document type. The verses of the poem should be styled with the appropriate style (e.g. Poetry, Verse, etc.) from your style palette, and the author should be styled with the style used for author names.

If whitespace is relevant to the poem's formatting and should be preserved, the style for preformatted text (if available) may be used rather than "Poetry" or equivalent. Please refer to the documentation on the DTD (available at <http://dtd.nlm.nih.gov/publishing/tag-library/n-qu60.html>) for guidelines on using "Poetry" versus "Preformatted Text".

Where separate stanzas should be represented in the XML with a <verse-group> element, an empty paragraph styled "Poetry" should be inserted between the lines that begin and end their respective stanzas:

```

    Epitaph

    An old willow with hollow branches

    slowly swayed his few high bright tendrils

```

and sang:

Love is a young green willow  
shimmering at the bare wood's edge.

This example yields the following XML:

```
<title>Epitaph</title>
<verse-group>
<verse-line>An old willow with hollow branches</verse-line>
<verse-line>slowly swayed his few high bright tendrils</verse-
line>
<verse-line>and sang:</verse-line>
</verse-group>
<verse-group>
<verse-line>Love is a young green willow</verse-line>
<verse-line>shimmering at the bare wood's edge.</verse-
line>
</verse-group>
```

## Preparation of Math for Export

The JATS and NLM Book DTDs allow 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. How your export has been set up depends on the uses that are going to be made of your XML and the needs of any downstream partners such as compositors and online hosts.

Design Science **MathType** must be installed for eXtyles to generate MathML or image files of your equation objects.

For example, this MathType equation:

$$\sqrt{a^2 + b^2} \quad (2) \quad \text{[Equation]}$$

when exported as MathML, gives this XML:

```

<disp-formula id="e2">
  <mml:math id="m1">
    <mml:mrow>
      <mml:msqrt>
        <mml:mrow>
          <mml:msup>
            <mml:mi>a</mml:mi>
            <mml:mn>2</mml:mn>
          </mml:msup>
          <mml:mo>+</mml:mo><mml:msup>
            <mml:mi>b</mml:mi>
            <mml:mn>2</mml:mn>
          </mml:msup>
        </mml:mrow>
      </mml:msqrt>
    </mml:mrow>
  </mml:math>
</label>(2)</label>
</disp-formula>

```

Note that the values of the `<mml:math>` `id` attribute are allocated sequentially on export and do not necessarily correspond to any equation number used in the text [if, in this example, equation (1) had been typed from the keyboard, so that equation (2) was the first MathType object in the document]. Values of the `<disp-formula>` `id` attribute **are** based on the equation numbers. Values of the `<disp-formula>` `id` attribute for unnumbered equations are treated similarly to unnumbered figures and tables: the first equation is "e", the second is "e\_\_\_1", etc.

If the export is instead set to add pointers to equations, the following XML is output:

```
<graphic position="anchor" xlink:href="9388_007-m1"
xmlns:xlink="http://www.w3.org/1999/xlink"/>
```

where 9388\_007 is the document ID, set in the Document Information dialog. Note that, by default, the file extension is not included in the XML (see the previous discussion). The default naming convention for equation images is based on the document ID and "mn", where *n* is the sequential number of the equation object (note that this is not related to any equation numbers that may or may not be associated with the equation in the text).

If both MathML and pointers to images are required, the output XML looks like this (note that the contents of the equation have been omitted for the sake of brevity) in versions of the Journal Publishing and Book DTDs up to 3.0:

```
<disp-formula id="e2">
<mml:math id="m1">...</mml:math>
<graphic position="anchor" xlink:href="123-m1"
xmlns:xlink="http://www.w3.org/1999/xlink"/>
</disp-formula>
```

In JATS, the `<alternatives>` element is available. In this case, the output XML would look like this:

```
<disp-formula id="e2">
<alternatives>
<mml:math id="m1">...</mml:math>
<graphic position="anchor" xlink:href="123-m1"
xmlns:xlink="http://www.w3.org/1999/xlink"/>
</alternatives>
</disp-formula>
```

The presence of the `<alternatives>` element makes it easier for rendering engines to determine that only one or other of the two outputs should be used.

eXtyles supports equations added by authors with the Microsoft Equation Builder, the default equation editor in Word 2007 and later versions, and also the older Microsoft Equation 3.0 format (still accessible in Word 2007 and 2010, from the Insert Object menu) and MathType,

the "parent" of Microsoft Equation 3.0. Any of these formats will be correctly exported as math according to the configuration of your export filter.

For all equation objects, Design Science **MathType** must be installed for eXtyles to generate MathML or image files of your equation objects.

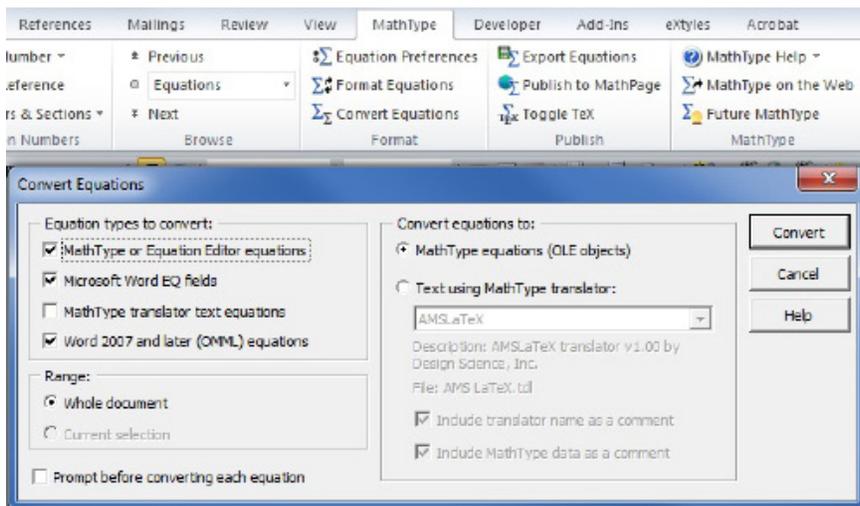
Please contact [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) if you have questions about export of math from your documents.

## 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 those listed previously (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.

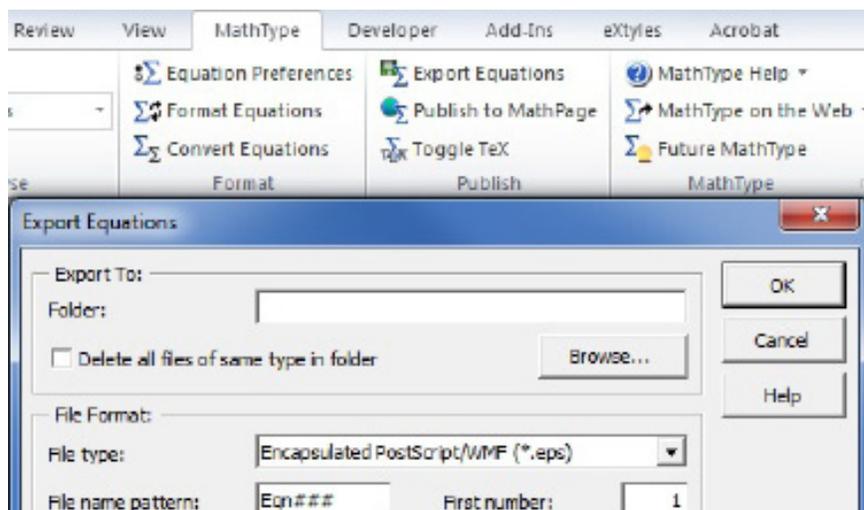
A common reason for equations appearing as images in the Word file is if a Word 2007/2010 DOCX file containing Word Equation Builder objects has been saved as a Word 2003 DOC file. As the Equation Builder is not backward compatible with Word 2003, the equations are saved as images instead. To avoid this problem, Equation Builder objects should be converted to MathType equations using the Convert Equations function (see the following figure) 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).
  
3. **Equation images not exported.** If your NLM XML export generates pointers to image files for math, these image files must also be exported. This can be automated as part of your eXtyles XML export: if you do not have automatic export of math enabled, the images must be exported manually from the MathType menu/ribbon in Word using the Export Equations function (see the following figure).



## Notes about Equation Builder Math

Microsoft Equation Builder math cannot be exported as image files; these equations can only be exported as MathML when MathType is installed. Microsoft's MathML is not the same as the MathML produced by MathType. For consistency in your XML archive, we recommend that all math be converted to MathType in your workflow.

Should you choose to keep equations in Equation Builder format, be advised that Microsoft makes extensive use of Plane 1 Unicode in Equation Builder; many applications that render MathML do not have full support for Plane 1 Unicode, and end-user systems viewing MathML may not have font sets that include Plane 1 Unicode.

## Notes about Export of Equation Images from Word Using MathType

MathType has a number of settings that control the export of math equations from Word (see the previous figure). These include:

1. The folder that the equations are exported to
2. The format of the equation files (.eps, .gif or .wmf)
3. The filename pattern that will be used for the exported files

Automatic math export will ensure that these options are set correctly. For manual export, these settings must match the settings used in your XML export so that the image files match the pointers included in the XML.

It is also possible to set other properties for exported GIF files, and such changes may be required by downstream applications such as composition or online hosting. To access these settings, open a MathType object in Word and select Preferences: Web and GIF Preferences. From this menu, you can set:

1. The resolution of the image (up to 1000 d.p.i.). By default, this is set to the current screen resolution (typically 72 or 96 d.p.i.), which would be fine for online use but would give unsatisfactory results if the images are used for printing. Setting a higher resolution will give better results when the images are printed
2. The color of the bitmap background. By default, this is set to white. It can be set to transparent, which would be needed if the images are to be printed onto a colored substrate or used online on a colored background.

These settings are stored on a user's computer, so they need to be set only once for any machine used to export math images. The settings will also be picked up by the eXtyles automated math image export.

## The Insert Tag Menu

The items on the eXtyles Insert Tag menu allow greater control over the XML output. Note that not all of these tags will necessarily be available in your eXtyles configuration. Inera typically adds specifically required tags as needed. Contact [exstyles-support@inera.com](mailto:exstyles-support@inera.com) if you believe that you would benefit from the addition of any of these tags to your configuration.

Any time instructions below call for an eXtyles Tag (tag names highlighted in bold) to be added to a figure, table, or text 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.

## Figure Tags

### Special Figure Filenames

In some cases, you may want to use an explicit filename for figures instead of using the auto-assigned eXtyles name. This may be especially true for unnumbered figures. For example,

if you have a book about animals, you might want to name each image for the name of the animal. This can be done by using the Insert Tag item on the eXtyles Menu to insert an **Inline Graphic** tag (**Named Graphic** in some configurations).

When doing this to override the automatic figure filename assignment in a figure caption, this tag must be placed at the end of the figure caption. If the figure has a multi-paragraph caption, this tag should be inserted at the end of the last paragraph. If the figure has an attribution, source, or copyright line, the tag should be inserted after any of these paragraphs.

Doing so inserts a tag like this:

```
Fig. 1. Effect of DGC or PDE overexpression in B. bronchiseptica biofilm
formation.<graphic></graphic>
```

And then you should type in the name of the figure file in between the tags like this:

```
Fig. 1. Effect of DGC or PDE overexpression in B. bronchiseptica biofilm
formation.<graphic>Biofilm-image</graphic>
```

When the XML is created, the name inside the tags is used as the pointer to the graphic file, as in:

```
<graphic xlink:href="Biofilm-image"/>
```

## Figure Placement and Orientation

Sometimes it's necessary to insert a figure that has no caption at an arbitrary location (e.g. a custom logo at the end of each article). This can be done by using the Insert Tag item on the eXtyles Menu to insert an **Inline Graphic/Named Graphic** tag at any point in the text. Doing so inserts a tag like this:

```
End of article text.<graphic></graphic>
```

And then you should type in the name of the figure file in between the tags like this:

```
End of article text.<graphic>CustomLogo</graphic>
```

When the XML is created, the name inside the tags is used as the pointer to the graphic file, e.g.:

```
End of article text.<inline-graphic xlink:href="CustomLogo"/>
```

As with other figures, no file extension is used because the file extension will be added during the rendering process. However if you add an explicit extension inside the **<graphic>** tag, it will be carried through into the XML.

In addition to “inline,” the orientation of a graphic may be defined as **Anchor**, **Float**, or **Landscape** by using additional graphic tags at the end of a figure caption. For example, a graphic that should be formatted as a landscape image during final production should use the **Landscape** tag, and not the **Graphic** tag:

**Fig. 3.** Illustration of a large map<landscape></landscape>

This yields the following XML:

```
<fig id="f3" position="float" fig-type="figure"
orientation="landscape"><label>Fig. 3</
label><caption><p>Illustration of a large map</p></
caption><graphic xlink:href="123-f3"></graphic></fig>
```

## Figures Made Up of Multiple Image Files

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 eXtyle 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: This is a figure<panel>d</panel>
```

The resulting XML will look like this:

```
<fig id="F001" position="float" fig-type="figure">
<label>Figure 1</label>
<caption><p>This is a figure made up of four image files.</p></
caption>
<graphic xlink:href="BK06557_C001_F001a"></graphic>
```

```

<graphic xlink:href="BK06557_C001_F001b"></graphic>
<graphic xlink:href="BK06557_C001_F001c"></graphic>
<graphic xlink:href="BK06557_C001_F001d"></graphic>
</fig>

```

The **Figure Panels** tag can even be used in cases where the parts of the figure are not evenly distributed, one per image file. For example:

```
Figure 2: This is a figure title<panel>ad,ef,gk</panel>
```

yields this XML:

```

<fig id="f2" position="float" fig-type="fig">
<label>Figure 2</label>
<caption><title>This is a figure title</title></caption>
<graphic xlink:href="56789-f04-f2ad"/>
<graphic xlink:href="56789-f04-f2ef"/>
<graphic xlink:href="56789-f04-f2gk"/>
</fig>

```

This would correspond to three image files, one containing parts (a)–(d), a second containing parts (e) and (f), and a third with parts (g)–(k), with each file named appropriately.

## Video Files

Video files can be treated in the same way as static figures when exporting XML to the JATS or NLM Book DTDs. If your figure caption style is applied to a caption for the video, and the video is cited as e.g. "Video 1" or "Movie 1" in the text and the caption, then eXtyles will export the appropriate XML (Citation Matching will also match citations of videos in the same way that it matches citations of figures, tables, etc.).

One thing to bear in mind is that the export will create both a `<media>` element (for the video file itself) and a `<graphic>` element in the XML. This `<graphic>` element should point to a static file that can then be used as a placeholder for the video file in a print publication or as the preview frame online.

The following XML will be created:

```
<fig id="vid1" position="float" fig-type="video">
<label>Video 1</label>
<caption><p>This is the caption for the video.</p></caption>
<graphic xlink:href="CDT-2012-35-vid1"></graphic>
<media xlink:href="CDT-2012-35-vid1"/>
</fig>
```

The XML would need to be accompanied by files named CDT-2012-35-vid1.tif (or perhaps .gif or .jpg) for the placeholder and, for example, CDT-2012-35-vid1.avi for the video itself.

## Object Types

In many cases, it can be useful to have multiple types of "objects" when driving formatting from XML. For example, a chapter might have "Box" and "Essay" sidebars, each with unique formatting. eXtyles supports this well by automatically setting the content-type attribute when an "Essay" label is found in text, e.g.

Essay 1: This is an essay

becomes the following in XML:

```
<boxed-text id="ES001" content-type="essay">
<label>Essay 1: </label>
<caption><title>This is an essay</title></caption>
```

However, 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:

**Pearls and Pitfalls**<Box\_Type>Pearl</Box\_Type> [Box  
Title]

- Head CT is critical to diagnosis, management, and prognosis following TBI [Box Text]

would yield this XML:

```
<boxed-text id="c002_bb" content-type="Pearl" location="intext"
position="anchor">

<title>Pearls and Pitfalls</title>

<list id="c002_l014" list-type="bullet"><list-
item><label>&bull;</label><p>Head CT is critical to diagnosis,
management, and prognosis following TBI</p></list-item>

</boxed-text>
```

This same technique can be used to set types for

Figures (**Figure Type**)

Tables (**Table Type**)

Section Heads (**Section Type**)

Lists (**List Type**)

Extract quotes (**Extract Type**)

by using the appropriate tags on the Insert Tag menu, as indicated. This feature gives tremendous flexibility to format books without requiring a large number of new paragraph styles.

## MIME Type

As mentioned earlier, the file type extension for image files is not included in the XML. However, there may be occasions when it is necessary to specify the type of image file that is associated with a given `<graphic>` element. The **Mime Type** tag can be used in this case. The following text in the Word file:

Figure 1: This is a figure title<mime>TIFF</mime>

results in the following XML:

```
<fig id="f1" position="float" fig-type="fig">
<label>Figure 1</label>
<caption><title>This is a figure title</title></caption>
```

```
<graphic xlink:href="56789-f04-f1" mimetype="TIFF"/>
</fig>
```

## Specific Use

JATS and versions 3.0 of the NLM Journal Publishing and Book DTDs contain an attribute "specific-use"; **this attribute is not available in version 2.3 or earlier** of the DTDs. This attribute is found in most elements and can be used very effective in place of processing instructions to set up information in the XML specific to your environment. While not widely needed in journals, this attribute is very useful in books. For example, if you have a paragraph that needs to be centered in the PDF, you could set up the following:

```
Paragraph<su>centered</su>
```

by selecting **Specific Use** from the eXtyles **Insert Tag** menu and then typing into the tags the text you want in the attribute. This results in the following XML

```
<p specific-use="centered">Paragraph</p>
```

This tag can be applied to figures, tables, boxes, extract quotes, lists, and paragraphs.

As another example, the markup:

1. Which refers to communicating between people about general information?
  - a. intrapersonal<su>2col</su>
  - b. impersonal
  - c. interpersonal
  - d. public
2. Which speaking context refers to the values and beliefs of your audience?

specifies that the nested list items a through d should appear in a 2-column layout (note that this could also be accomplished with a two-column inline table, but then the 2-column layout would be required in both print and electronic formats, which using specific-use lets each rendering system display with a different layout).

This would give the following XML:

```
<list list-type="order" id="L1">
```

```
<list-item><p>Which refers to communicating between people
about general information?</p>
```

```
<list specific-use="2col" list-type="alpha-lower" id="L2">
```

```
<list-item><p>intrapersonal</p></list-item>
```

```
<list-item><p>impersonal</p></list-item>
```

```
<list-item><p>interpersonal</p></list-item>
```

```
<list-item><p>public</p></list-item>
```

```
</list>
```

```
</list-item>
```

```
<list-item><p>Which speaking context refers to the values and
beliefs of your audience?</p></list-item>
```

```
</list>
```

To apply specific use to a list item (rather than the entire list), it is necessary to use the **List Item Specific Use** tag at the end of the list item in question.

Another example of the specific-use attribute is to indicate a photo that should have a clipping path applied for rendering, as in:

```
In what ways can you be ethical in researching speech topics?<su>clip-path</su>
```

If this tag were used at the end of a photo caption, it would yield the following XML:

```
<fig id="fa" position="float" fig-type="photo" specific-use="clip-path">
```

```
<caption><p>In what ways can you be ethical in researching speech
topics?</p></caption>
```

```
<graphic xlink:href="0-123456-78-9c003-fa"></graphic>
```

```
</fig>
```

## List Continued

It is sometimes necessary to interrupt a list with, say, a subheading. Under normal circumstances, this would cause the next item in the list to be placed in a new list in the XML file. Because it is not permitted by JATS or the NLM Book DTD to start a new XML section

within a list, it isn't possible to set up a Word paragraph style for a heading in a list. Instead, the **List Continued** tag should be placed at the end of the first list item after the heading, which has the effect of connecting the two lists by a continued-from attribute in the XML. An example of the use of this tag in Word follows:

### Section 1. Bibliography

1. Poetry collections
2. Books, prose
3. Drama

### Section 2. External links

4. Profiles<list-cont></list-cont>
5. Archive and works

which yields the following XML:

```
<sec id="ss-s09-01-01">
<title>Section 1. Bibliography</title>
<list id="ss-L18" list-type="order">
<list-item><label>1</label><p>Poetry collections</p></list-item>
<list-item><label>2</label><p>Books, prose</p></list-item></list>
<list-item><label>3</label><p>Drama</p></list-item></list>
</sec>

<sec id="ss-s09-01-02">
<title>Section 2. External links</title>
<list id="ss-L19" list-type="order" continued-from="ss-L18">
<list-item><label>4</label><p>Profiles</p></list-item>
<list-item><label>5</label><p>Archive and works</p></list-item></
list>
</sec>
```

## XML Tag

There may be times when you need to insert some XML exactly as it appears in the Word document, perhaps to include some XML that isn't supported by your current export filter. This can be achieved by adding the **XML** tag and placing the raw XML code between the start and end tags. For example:

**Abstract:** this is the `<xml><monospace>courier</monospace><named-content content-type="test">species</named-content></xml>` document in English.

yields this XML:

```
<abstract>

<sec><title>Abstract</title><p>this is the <monospace>courier</monospace><named-content content-type="test">species</named-content> document in English.</p></sec>

</abstract>
```

Note that this raw XML will still need to be valid against the appropriate DTD, and will cause a parsing error if not.

## Typéfi Tags

For eXtyles customers who use Typéfi to create PDF files in InDesign from their JATS- or NLM Book DTD-compliant XML, there are a number of tags on the **Insert Tag** menu that give great control over display items in composition. The precise effect of each of these tags will have been arranged with Typéfi to suit the needs of your layout. Note that these effects could also be achieved by using the content-type attribute, as outlined for the various **Object Type** tags. These tags must appear at the end of the caption of the item to which they apply.

## Size Tags

Tags are available to set display items to be small, medium, or large (e.g. **Tbl\_Small**, **Fig\_Med**, and **Box\_Large**). These tags should be placed at the end of the table title, figure caption, or box caption. They result in processing instructions (e.g. `<?Table Small?>`, `<?Figure Med?>`, and `<?Box Large?>`) being added to the XML that will direct Typéfi to set the tables, figures, or boxes a particular size.

For example, this text in the Word file:

Figure 3 The Future Value of a Five-Year Ordinary Annuity<Fig\_Large></Fig\_Large>

will yield this XML:

```
<fig id="DOC0123-R-F3" position="float" fig-type="figure"><?Figure
Large?><label>Figure 3 </label><caption><title>The Future
Value of a Five-Year Ordinary Annuity</title></caption><graphic
xlink:href="DOC0123-R-F3"></graphic></fig>
```

## Turn Tags

Tags are also available to force display items (tables, figures, and boxes; e.g. **Tbl\_Turn1**, **Fig\_Turn2**, **Box\_Turn3**) to be displayed in a landscape orientation.

## Span Tags

The span tags (**Tbl\_Small\_Span**, etc.) map to full-table or individual cell styles in InDesign, such as cell shading.

## Export Failures

Inevitably, you will encounter parsing errors in some files. Typically parsing errors are caused by:

- Incorrect use of Word paragraph or character styles
- Incorrect copyediting that affects XML
- A bug in the export filter

**Warning:** Never use an XML file created by eXtyle that has not parsed successfully

When parsing failures occur, you will be given a warning with the number of parsing errors. The XML file returned from the parser will include errors and warnings, which can be found by searching for "`<!--warning`" and "`<!--error`". When you find the warnings or errors, you will need to interpret them and determine the appropriate action to resolve the problem.

Often, you can resolve the problem by reading the text near the XML error and then finding the same location in the Word file that you exported. Usually it is possible to select a run of text that is likely to occur only once in the document and use Word's Find function to locate

that point in the Word document; however, bear in mind that special characters will appear differently in the XML and that different paragraphs will be separated by XML tags, so choose some text from a single paragraph near the XML error that contains only letters, numbers, spaces, periods, and commas.

When you locate the general area of the problem, check to make sure that all paragraphs are styled correctly, that any character styles and/or eXtyles tags have been correctly applied, and that the copyediting is correct according to your style. Correct any problems and then export the file again.

If you are unable to resolve the problem by fixing the styling or editorial errors, contact Inera by emailing [exstyles-support@inera.com](mailto:exstyles-support@inera.com). In such cases, please include the Word document in the email as it was when you selected Export as well as the XML that yielded the parsing error so that we can easily replicate and address the problem. Inera will resolve the problem by clarifying the markup or issuing a patch to the filter.

## A Special Note about Manual Line Breaks (Soft Returns)

Many eXtyles customers convert manual line breaks (also referred to as soft returns) to another character, usually a hard return or a space, on document cleanup. However, for some customers, it is necessary to retain soft returns.

By default, manual line breaks are exported as the `<break/>` element in the XML. However, the `<break/>` element is allowed in only a limited number of contexts in the JATS DTD and in an even more restricted number of places in the NLM Journal Publishing and Book DTDs. Generally speaking, the two locations where it is safe to have a soft return in a Word file that you export to XML are within preformatted text (i.e. computer code) and inside a table cell. Soft returns in other locations generally lead to a parsing error.

However, that is not the end of the matter. In the NLM Book and Journal Publishing DTDs, `<break/>` is not allowed within face markup tags, such as `<bold>`, `<italic>`, `<sup>`, and `<sub>`. Therefore, although you are allowed a soft return inside a table cell, you cannot have a **bold** soft return inside a table cell (even within a table column head that is in bold). The `<break/>` element is also not allowed within `<p></p>` tags, so you cannot have a soft return after a hard return within a table cell, as the hard return will open a `<p>` tag within the `<td>` tags for the table cell.

Therefore, if you retain soft returns after cleanup, it could be beneficial to do a find-and-replace for bold soft returns before export and remove the bold markup.

The prohibition against `<break/>` inside face markup tags has been removed in the JATS DTD, but it is still not allowed inside `<p></p>`.

## The Perils of Hand Tagging: More Detail on XML Errors

Probably the commonest causes of parsing problems and other XML errors are misapplied Word styles resulting from inaccurate hand tagging of Word files. Training your editors to avoid these mistakes will make the biggest difference to the number of XML errors that you encounter on export.

Common hand-tagging errors can be divided into these classes:

1. **Misapplied paragraph styles.** Word paragraph styles include a setting for the style of the following paragraph. If you press Return to insert a new paragraph during editing, the next paragraph will carry the style specified by the "Style for following paragraph" of the style of the previous paragraph, which may or may not be the same style. Therefore, any time that a new paragraph is added from the keyboard, take care to check that the paragraph style is the appropriate one for the new paragraph.

Such errors will not necessarily cause parsing problems: this can often be worse than a parsing error, as the incorrect XML will probably then go straight into downstream processes such as typesetting without further verification.

2. **Incorrectly hand-tagged references.** eXtyles does a great job of parsing most references automatically. However, some references slip through the net. The first thing to do is to try to understand why the reference has not parsed correctly. This may be because an author's initials are missing, or their surname has been treated as an initial (i.e. "D., J." rather than "Doe, J."), or there are too many errors or missing elements in the reference to allow eXtyles to pick it apart.

If you are able to identify and correct the cause of the problem, the safest course of action is to correct the error; delete the `<jrn>`, `<bok>`, or other tags around the reference; and rerun Bibliographic Processing.

If that still doesn't fix the problem, the eXtyles character styles for the different reference elements can be applied by hand, but take **extreme care** to apply the correct style (e.g. **bib\_surname** for an author's surname, not **au\_surname**, the style used for the authors of the paper) and to apply the style to the correct text only (e.g. do not include or leading or trailing punctuation or spaces in the character style).

It is not necessary to style all elements of unstructured references. Only the authors and year need to be styled in these references. Depending on your eXtyles configuration, this will include unknown references, electronic references (though the URL should be styled as `bib_url`), theses, legal references, conference proceedings, and book references. Attempting to style these references more fully may result in parsing errors and will not improve the quality of your XML.

- 3. Other misapplied character styles.** The Word template associated with your eXtyles configuration applies certain formatting to different paragraph styles selected from the eXtyles Paragraph Styling palette. The face markup (bold, italic, etc.) associated with these styles in the Word file may or may not correspond to the XML tags for that element in the final XML output. For example, many heading styles are in **bold** in Word, to make them stand out, but these paragraphs do not normally have `<bold>` tags around them in the XML file, because they are identified in other ways (for instance, by `<title>` tags), allowing them to be rendered in a variety of ways depending on the context. eXtyles is therefore expecting bold text for this paragraph, and outputs text that is not bold in the XML. If the boldface markup is removed from the paragraph in editorial processing, this has the effect of toggling the bold in the XML, resulting in the title paragraph having `<bold>` tags where none should appear. This in turn can have unpredictable consequences in composition, perhaps meaning that a title that should be typeset in bold is in fact in lightface.

Again, these mistakes may not lead to parsing errors but will quite likely lead to the incorrect formatting being rendered in downstream outputs.

## Playing All the Right Notes, But Not Necessarily in the Right Order (with apologies to Morecambe & Wise)

A less common cause of parsing errors is the order of paragraphs. Certain types of paragraphs must occur in a defined position relative to other paragraph styles. Because of the nested nature of the final XML file, certain elements must appear inside certain other elements and/or cannot appear inside some other elements:

- **Table captions.** A particular example is the table caption: the paragraph in your table caption style must appear **before** the table to which it relates, not after it. Depending on your eXtyles configuration, the presence of more than one paragraph in your table caption style may also cause a parsing error.
- **Tables in footnotes.** If a table appears within a footnote, eXtyles will happily accommodate this. However, it is not permissible to have a table caption

paragraph to accompany the table. If you have content that contains complex footnotes, you should contact [extyles-support@inera.com](mailto:extyles-support@inera.com) to discuss your requirements.

- **Footnotes in tables.** If regular body footnotes are cited in a table, eXtyles will not automatically link the footnote citation to the cited footnote, as it is not safe to assume whether the footnote being cited is a table footnote or a body footnote. If the footnote material cannot be restyled as a table footnote, the footnote citation in the table should be styled carefully by hand using the **cite\_fn** style.
- **Figure graphics.** If you have a paragraph style to accommodate figure graphics in the Word file, the figure caption will generally need to appear before the image. However, it is possible to support the caption appearing after the graphic; if you use a style where figure captions may be placed after the graphic, please contact [eXtyles-support@inera.com](mailto:extyles-support@inera.com) to discuss your requirements
- **Unnumbered and/or uncited figures, tables, and boxes.** Numbered display items can be positioned either at the point in the document where they should appear or grouped together at the end of the document. Depending on your configuration, numbered items in the XML will be left where they are found in the Word file or moved either to the precise point they are first cited or to the end of that paragraph. Because there is no citation that eXtyles can use to place them, unnumbered and/or uncited display items must be positioned in the Word file at the point that they should occur in the XML.
- **Reference annotations.** In general, these must **follow** the reference to which they refer. Placing an annotation before the reference to which it occurs may not cause a parsing error (unless you place an annotation before the first reference), but the annotations would be associated with the wrong reference in the XML file. Again, it would be possible for the annotations to be placed (consistently) before the references, but that would preclude positioning annotations after references for that export filter.
- **Word comments.** These are frequently used as a way of including author queries in the output XML. However, comments can cause problems if they are wrongly placed in highly structured parts of the document such as the author list or references. In references, the safest position for a comment is attached to unstyled punctuation outside the author list. Comments placed in the author list may be dropped entirely from the XML.

Contact [eXtyles-support@inera.com](mailto:eXtyles-support@inera.com) if you suspect that your editorial workflow could benefit from changes in the permitted order of document elements.