ConTeXt basics for users: Indentations

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Abstract

ConTeXt's indentation mechanism can be a bit confusing. This article explains why ConTeXt indentation works the way it does and how to set up indentation to achieve desired behaviour.

1 Introduction

In plain TeX, controlling indentation is simple: The user sets a value for `\parindent`, and each new paragraph is indented by that value, unless explicitly begun with `\noindent`. Environments can provide a `\noindent` at the end of their definitions, and if the user wants to overrule that, he can add an explicit `\indent` at the beginning of the next paragraph. For the most part, LaTeX follows the same convention.

So, understanding indentation in plain TeX and LaTeX boils down to this: set a value for `\parindent`, and start a new paragraph (i.e., leave an empty line) whenever you want indentation. For example, LaTeX usually does not indent the first line after a sectioning command. If you want to indent the first line after a sectioning command you use the `indentfirst` package (which is part of the required LaTeX bundle). If you want to indent the paragraph after an environment, you leave a blank line after the end of the environment; if you do not want to indent after the end of an environment, you do not leave a blank line. It takes a while to get used to, but the rules are easy to remember and eventually you do not need to even think about indentation; it becomes a matter of habit.

Indentations in ConTeXt are a bit different; and sometimes difficult to understand. In this article I hope to explain how ConTeXt does indentations. First, let's understand why ConTeXt does indentations differently; why does it not simply follow the time-tested approach of plain TeX and LaTeX? The way I understand it, the reason is that Hans Hagen, the author of ConTeXt, prefers *spaced out* markup — surrounding each environment by empty lines — which makes it easy to see where an environment starts and ends while reading the source file. However, this style means that the "indentation after empty lines" paradigm of plain TeX and LaTeX cannot be used for indentations. So, ConTeXt provides an alternative. As with other things in ConTeXt, this alternative is consistent and easy to configure; but if you are used to other TeX formats it takes some time to get comfortable with it.

2 The basics

Indentation involves two things: when to indent, and how much to indent. In ConTeXt, these can be specified using `\setupindenting[...]`. There are two types of keys for this command:

1. To specify *when to indent*: `never` or `always`, (equivalently, `no` or `yes`), `odd` or `even`, and `first` or `next`.
2. To specify *how much to indent*: `none`, `small`, `medium`, `big`, or a specific dimension. `small` corresponds to 1em, `medium` to 1.5em, and `big` to 2em.

Suppose we want to indent all paragraphs by 20pt, which is the convention followed by this journal: we can use `\setupindenting[20pt, yes]`. This is what one typically uses in a document. The other keys are needed only for special cases (like typesetting quotations and verses), and we will not talk about them in this article.

`\setupindenting` does not take care of indenting after environments, such as ConTeXt's itemizes (approximately LaTeX `itemize` and `enumerate`), enumerations ($\approx$ LaTeX `theorem`), definitions ($\approx$ LaTeX `subparagraph`), formulas and floats. It also does not take care of indenting after heads such as chapters, sections, and subsections.

The setup command of these environments provides an `indentnext` key to configure the indentation behaviour after the environment. The `indentnext` key can take one of three values: `yes`, `no`, and `auto`. If `indentnext=yes` then the paragraph after the end of the environment is always indented; if `indentnext=no` then the next paragraph is never indented; if `indentnext=auto` then the next paragraph is indented only if there is a blank space after the environment. Setting `indentnext=auto` is equivalent to the default plain TeX and LaTeX behaviour.

Let us provide a couple of examples. Suppose we do not want paragraphs after itemize to be indented; then we can say

`\setupitemgroup[itemize][indentnext=no]`

If we want paragraphs after section heads to be indented, we can say

`\setuphead[section][indentnext=yes]`

If we want the paragraphs after all sectioning heads to be indented, we can say

`\setupheads[indentnext=yes]`

If we want paragraphs after formulas to be indented only if we leave a blank space after them, we can say

`\setupformulas[indentnext=auto]`

There is one case that is not taken care of by `\setupindenting` and the `indentnext` key: indentation of paragraphs inside multi-paragraph environments such as itemizes, descriptions, and enumerations. By default ConTEXt does not indent such paragraphs. The setup commands of these environments provides an `indenting` key to configure the indentation behaviour of paragraphs inside these environments. This key takes the same values as the arguments of `\setupindenting` command. For example, if we set

```
\setupitemgroup[itemize][indenting={40pt,yes}]
```

then the following (|-| in ConTEXt indicates a hyphen after which further hyphenation is allowed; see `http://www.logosrl.it/context/modules/ current/singles/lang-mis_ebook.pdf` for more):

```
\startitemize
\item This is an example of a multi|-|paragraph
     item inside an itemize environment.

     This second paragraph is indented by 40pt
     (double the normal indentation).
\stopitemize
```

gives

- This is an example of a multi-paragraph item inside an itemize environment.
              This second paragraph is indented by 40pt (double the normal indentation).

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3   Manual indentation

No matter how careful we are with all the settings, there are some cases which cannot be taken care of by automatic indentation, and we have to tell ConTEXt how to indent. Plain TEX (and LATEX) provide the `\indent` and `\noindent` commands for explicitly indenting and preventing indenting of a paragraph. These commands are defined in ConTEXt but are not hooked into the ConTEXt indentation mechanism. Instead, ConTEXt provides `\indentation` and `\noindentation` which achieve the same effect.

Notice that in this article, paragraphs after itemize are not indented. This is because the itemize environment has been set up (according to the general style of the journal) as

```
\setupitemgroup [itemize] [indentnext=no]
```

Now, if we want to indent after an itemize, starting the next paragraph with `\indent` does not work; to get indentation we have to say `\indentation`. For example,

```
\startitemize[n]
\item A dummy list
```

```
\item To check \tex{indent}
\stopitemize

\indent This paragraph is not indented. The
\tex{indent} command does not work here.

\startitemize[n]
\item Another dummy list
\item To check \tex{indentation}
\stopitemize

\indentation This paragraph will be indented
because we used \tex{indentation} instead.
```

gives

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1. A dummy list
2. To check `\indent`

This paragraph is not indented. The `\indent` command does not work here.

1. Another dummy list
2. To check `\indentation`

    This paragraph will be indented because we used `\indentation` instead.

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4   Beware of typos

ConTEXt defines two more commands not commonly used: `\indenting` and `\noindenting`. `\indenting` is similar to `\setupindenting` and is provided for backward compatibility; `\noindenting` is equivalent to `\setupindenting[no]`. Unfortunately, these commands sound very similar to `\indentation` and `\noindentation`, thus can be easily used by mistake. If you happen to write `\noindenting` instead of `\noindentation` in a document, it can take a while to debug. I have been bitten by this mistake once too often so I have invented a mnemonic to avoid it:

> *shun (-tion) the -ing*—use indentation

I admit, this is not a clever mnemonic, but it has saved me quite a few trips to the manual.

5   Conclusion

This article explained how indentation works in ConTEXt. By default, ConTEXt does not enable *any* indentation; the user is expected to set up indentation as he wants. I hope this article has helped to illustrate how to set up indentation for different environments.

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