

The X۞Persian Package
<http://xepersian.berlios.de>

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Chapter 1

Introduction

X_ƎPersian is a package for typesetting Persian/English documents with X_ƎL^AT_EX. The package includes adaptations for use with many other commonly-used packages.

1.1 Important Notes

- ☞ The X_ƎPersian package only works with X_ƎL^AT_EX engine.
- ☞ Before reading this documentation, you should have read the documentation of the version 1.0.4 of `bidi` package. The X_ƎPersian package automatically loads `bidi` package with `RTLdocument` option enabled and hence any commands that `bidi` package offers, is also available in X_ƎPersian package. Here, in this documentation, we will not repeat any of `bidi` package's commands.
- ☞ In previous versions of X_ƎPersian, a thesis class, namely `xepersian-thesis.cls` provided for typesetting thesis. I no longer provide this class because I am not familiar with specification of a thesis in Iran and even if I was, the specifications are different from University to University. X_ƎPersian is a general package like L^AT_EX and should not provide any class for typesetting thesis. So if you really want to have a class file for typesetting thesis, then you should ask your University/department to write one for you.
- ☞ To get help, please subscribe to X_ƎL^AT_EX mailing list and ask your question there.

1.2 X_ƎPersian Info On The Terminal and In The Log File

If you use X_ƎPersian package to write any input T_EX document, and then run `xelatex` on your document, in addition to what `bidi` package writes to the terminal and to the log file, the X_ƎPersian package also writes some information about itself to the terminal and to the log file, too. The information is something like:

```
xepersian package (Persian for LaTeX over XeTeX)
Description: The package supports Persian
typesetting, using fonts provided in the distribution.
Copyright © 2008-2010 Vafa Khalighi
v1.0.4, <revision 147>, 2010/03/01
License: LaTeX Project Public License, version 1.3c or higher (your choice)
Home: http://xepersian.berlios.de
Location on CTAN: /macros/xetex/latex/xepersian
```

1.3 PDF Creator of XePersian Documents

If you use XePersian package to produce a PDF file, the XePersian package writes itself to the Application field of the PDF file and hyperref would have no effect since this is done at the beginning of the document. Thus if you produce a PDF file using the XePersian package and then you look at the application field in the properties of the PDF file, you will see this:

XePersian v1.0.4 <revision 147> Copyright © 2008-2010 Vafa Khalighi

Chapter 2

Basics

2.1 Loading The Package

You can load the package in the ordinary way;

```
\usepackage [Options] {xepersian}
```

Where `options` of the package are explained later in [section 2.3](#).

When loading the package, it is important to know that:

- 1 `xepersian` should be the last package that you load, because otherwise you are certainly going to overwrite `bidi` and `X3Persian` package's definitions and consequently, you will not get the expected output.
- 2 In fact, in addition to `bidi`, `X3Persian` also makes sure that some specific packages are loaded before `bidi` and `X3Persian`; these are those packages that `bidi` and `X3Persian` modifies them for bidirectional and Persian/English typesetting.

If you load `X3Persian` before any of these packages, then you will get an error saying that you should load `X3Persian` or `bidi` as your last package. When it says that you should load `bidi` package as your last package, it really means that you should load `X3Persian` as your last package as `bidi` package is loaded automatically by `X3Persian` package.

For instance, consider the following minimal example:

Example 2.1: Wrong Order Of Loading `X3Persian` Package

```
\documentclass{minimal}
\usepackage{xepersian}
\usepackage{enumerate}
\settextfont [Scale=1.5]{Scheherazade}
\begin{document}
This is just a test.
\end{document}
```

Where `enumerate` is loaded after `X3Persian`. If you run `xelatex` on this document, you will get an error which looks like this:

```
! Package xepersian Error: Oops! you have loaded package enumerate after
xepers
ian package. Please load package enumerate before xepersian package, and then
t
ry to run xelatex on your document again.
```

See the xepersian package documentation for explanation.
Type H <return> for immediate help.

...

```
1.5 \begin{document}
```

?

- Ⓧ However, there is an exception to the two previous points. You should load `subfigure` package always after `X3Persian` package. Indeed, if like the following minimal example, you load `subfigure` package before `X3Persian` package:

Example 2.2: Wrong Order Of Loading `subfigure` Package

```
\documentclass{article}
\usepackage{subfigure}
\usepackage{xepersian}
\settextfont[Scale=1.5]{Scheherazade}
\begin{document}
This is just a test.
\end{document}
```

You will get an error saying that `subfigure` package should be loaded after `X3Persian` package. The error message looks like this:

```
! Package xepersian Error: Oops! you have loaded package subfigure before
  xeper
sian package. Please load package subfigure after xepersian package, and then
  t
ry to run xelatex on your document again.
```

See the xepersian package documentation for explanation.
Type H <return> for immediate help.

...

```
1.5 \begin{document}
```

?

2.2 Commands for Version, Subversion Revision and Date of The Package

<code>\xepersianversion</code> <code>\xepersianrevision</code> <code>\xepersiandate</code>
--

☞ `\xepersianversion` gives the current version of the package.

☞ `\xepersianrevision` gives the current subversion revision of the package.

☞ `\xepersiandate` gives the current date of the package.

Example 2.3: Version, SVN Revision and Date Commands

```
\documentclass{article}
```



```

\usepackage{xepersian}
\settextfont [Scale=1.5]{Scheherazade}
\begin{document}
\begin{latin}
This is typeset by \textsf{\XePersian} package, \xepersianversion, \
xepersianrevision, \xepersiandate.
\end{latin}
\end{document}

```

2.3 Options of The Package

There are two options:

2.3.1 Kashida Option

If you pass `Kashida` option to the package, you will use `Kashida` for stretching words for better output quality and getting rid of underfull or overfull `\hbox` messages. Please note that X series fonts of IRMUG (Iranian Mac Users Group) have absolutely super poor quality and if you use any of these fonts with `Kashida` option enabled, the result on the PDF viewed on the monitor is the ugliest of any kind, however the print may look fine. Hence if you are going to enable `Kashida` option, then you are advised to use either “Adobe Arabic” or “Scheherazade” fonts.

This is the font issue not X_qPersian’s bug

Note that you can not use `Kashida` option when you are using `Nastaliq`-like font (well, you still can use `Kashida` option when you use any `Nastaliq`-like font, but I can not guarantee high quality output!).

2.3.2 localise Option

If you enable `localise` option, then you can use most frequently-used \LaTeX commands and environments in Persian, almost like what `TeX-e-Parsi` offers. This is still work in progress and we wish to add lots more Persian equivalents of \LaTeX and `TeX` commands and environments. The Persian equivalents of \LaTeX and `TeX` commands are shown in [Table 2.1](#) and Persian equivalents of \LaTeX environments are shown in [Table 2.2](#).

Please note that the Persian equivalents of \LaTeX and `TeX` commands and environments are only available after loading `xepersian` package with `localise` option enabled. This means that even if you enable `localise` option, you still have to write all commands or environments that come before `\usepackage [localise] {xepersian}`, in its original form, i.e. `\documentclass`.

When you enable the `localise` option, not only you can use Persian equivalents of \LaTeX and `TeX` commands and environments, but still original \LaTeX and `TeX` commands and environments work too.

The `TeX` and \LaTeX commands and environments and their Persian equivalents listed in [Table 2.1](#) and [Table 2.2](#) is not the whole story; If any command and environment in [Table 2.1](#) and [Table 2.2](#) have a starred version, their starred version also work. For example in [Table 2.1](#), the Persian equivalent of `\chapter` is `فصل`. I know that `\chapter` has a starred version, so this means `*فصل` is also the Persian equivalent of `\chapter*`. Is that clear?

Table 2.1: The Equivalent \LaTeX and `TeX` Commands

Command in <code>TeX</code> or \LaTeX	Equivalent Persian Command
<code>\abovedisplayshortskip</code>	پرش کوتاه بالای نمایش
<code>\abovedisplayskip</code>	پرش بالای نمایش
<code>\abstractname</code>	نام چکیده
<code>\addcontentsline</code>	بیفزای خط فهرست

Continued on next page

Command in \TeX or \LaTeX Equivalent Persian Command

\backslash address	\آدرس
\backslash addtocontents	\بیفزایبرفهرست
\backslash addtocounter	\بیفزایبرشمارنده
\backslash addtolength	\بیفزایبرطول
\backslash addvspace	\بیفزایفاصله ع
\backslash aleph	\الف
\backslash allowdisplaybreaks	\شکست نمایش مجاز
\backslash Alph	\حروف ب
\backslash alph	\حروف ک
\backslash alsoname	\نام همچنین
\backslash and	\و
\backslash angle	\زاویه
\backslash appendixname	\نام پیوست
\backslash approx	\تقریب
\backslash arabic	\عربی
\backslash arg	\آرگ
\backslash arraycolsep	\جداگرستون آرایه
\backslash arrayrulewidth	\عرض نوار آرایه
\backslash arraystretch	\کشیدگی آرایه
\backslash AtBeginDocument	\در شروع نوشتار
\backslash AtEndDocument	\در پایان نوشتار
\backslash AtEndOfClass	\در پایان کلاس
\backslash AtEndOfPackage	\در پایان بسته
\backslash author	\نویسنده
\backslash backmatter	\مطلب پشت
\backslash backslash	\شکاف پشت
\backslash bar	\میله
\backslash baselineskip	\پیش خط کرسی
\backslash baselinestretch	\کشیدگی خط کرسی
\backslash begin	\شروع
\backslash belowdisplayshortskip	\پیش کوتاه زیرنمایش
\backslash belowdisplayskip	\پیش زیرنمایش
\backslash bfdefault	\پیش فرض سیاه
\backslash bfseries	\سری سیاه
\backslash bibitem	\بند کتاب نامه
\backslash bibliography	\کتاب نامه
\backslash bibliographystyle	\سبک کتاب نامه
\backslash bibName	\نام کتاب نامه
\backslash bigskip	\پیش بزرگ
\backslash bigskipamount	\مقدار پیش بزرگ
\backslash botfigrule	\نوار پای عکس
\backslash bottomfraction	\کسر پایین
\backslash bullet	\گلوله
\backslash caption	\شرح
\backslash cc	\رونوشت
\backslash ccname	\نام رونوشت
\backslash cdot	\نقطه وسط
\backslash cdots	\نقاط وسط

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\centering</code>	\اوسط چین
<code>\centerline</code>	\خط وسط
<code>\chapter</code>	\فصل
<code>\chaptername</code>	\نام فصل
<code>\cite</code>	\سند
<code>\ClassError</code>	\خطای کلاس
<code>\ClassInfo</code>	\اطلاعات کلاس
<code>\ClassWarning</code>	\هشدار کلاس
<code>\ClassWarningNoLine</code>	\هشدار کلاس بدون خط
<code>\cleardoublepage</code>	\دو صفحه پاک
<code>\clearpage</code>	\صفحه پاک
<code>\cline</code>	\خط س
<code>\closing</code>	\بستن
<code>\clubsuit</code>	\خاج
<code>\color</code>	\رنگ
<code>\colorbox</code>	\کادر رنگی
<code>\columnsep</code>	\جداگرستون
<code>\columnseprule</code>	\نوار جداگرستون
<code>\contentsline</code>	\خط فهرست
<code>\contentsname</code>	\نام فهرست
<code>\copyright</code>	\حق تالیف
<code>\CurrentOption</code>	\گزینه جاری
<code>\dashbox</code>	\کادر بینابین
<code>\dashv</code>	\بینابین ع
<code>\date</code>	\تاریخ
<code>\dblfigrule</code>	\نوار شکل دولا
<code>\dblfloatpagefraction</code>	\کسر صفحه شناوردولا
<code>\dblfloatsep</code>	\جداگرشناوردولا
<code>\dbltextfloatsep</code>	\جداگرشناور متن دولا
<code>\dbltopfraction</code>	\کسر بالای دولا
<code>\DeclareGraphicsExtensions</code>	\اعلام پسوند گرافیک
<code>\DeclareGraphicsRule</code>	\اعلام دستور گرافیک
<code>\DeclareOption</code>	\اعلام گزینه
<code>\DeclareRobustCommand</code>	\اعلام فرمان قوی
<code>\definecolor</code>	\معرفی رنگ
<code>\deg</code>	\درجه
<code>\depth</code>	\عمق
<code>\diamondsuit</code>	\خشت
<code>\dim</code>	\بعد
<code>\discretionary</code>	\احتیاطی
<code>\displaybreak</code>	\شکست نمایش
<code>\displaystyle</code>	\سبک نمایش
<code>\documentclass</code>	\کلاس نوشتار
<code>\dot</code>	\نقطه
<code>\doteq</code>	\نقطه مساوی
<code>\dotfill</code>	\پر نقطه
<code>\dots</code>	\نقاط
<code>\doublebox</code>	\کادر دولا

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\doublerulesep</code>	\ جدا اگر نواردولا
<code>\downarrow</code>	\ فلش پایین
<code>\em</code>	\ تا
<code>\emph</code>	\ تاکید
<code>\emptyset</code>	\ مجموعه تهی
<code>\end</code>	\ پایان
<code>\endfirsthead</code>	\ پایان اولین سر
<code>\endfoot</code>	\ پایان پا
<code>\endhead</code>	\ پایان سر
<code>\endlastfoot</code>	\ پایان آخرین پا
<code>\enlargethispage</code>	\ گسترش این صفحه
<code>\eqref</code>	\ ارجاع فر
<code>\euro</code>	\ یورو
<code>\evensidemargin</code>	\ حاشیه طرف راست
<code>\ExecuteOptions</code>	\ اجرای گزینه ها
<code>\extracolsep</code>	\ جدا اگر ستون اضافی
<code>\fancypage</code>	\ صفحه تجملی
<code>\fbox</code>	\ کادرف
<code>\fboxrule</code>	\ نوار کادرف
<code>\fboxsep</code>	\ جدا اگر کادرف
<code>\fcolorbox</code>	\ کادرف رنگی
<code>\figurename</code>	\ نام شکل
<code>\fill</code>	\ پرر
<code>\flat</code>	\ پهن
<code>\floatpagefraction</code>	\ کسر صفحه شناور
<code>\floatsep</code>	\ جدا اگر شناور
<code>\flushbottom</code>	\ تنظیم پایین
<code>\fnsymbol</code>	\ نمادین
<code>\fontfamily</code>	\ خانواده قلم
<code>\fontseries</code>	\ سری قلم
<code>\fontshape</code>	\ شکل قلم
<code>\fontsize</code>	\ اندازه قلم
<code>\LTRfootnote</code>	\ پانوشت چپ
<code>\footnote</code>	\ پانوشت
<code>\footnotemark</code>	\ نشان پانوشت
<code>\footnoterule</code>	\ نوار پانوشت
<code>\footnotesep</code>	\ جدا اگر پانوشت
<code>\footnotesize</code>	\ اندازه پانوشت
<code>\footnotetext</code>	\ متن پانوشت
<code>\footskip</code>	\ پرش پا
<code>\frame</code>	\ فریم
<code>\framebox</code>	\ کادرفریم
<code>\frenchspacing</code>	\ فاصله گذاری فرانسوی
<code>\frontmatter</code>	\ مطلب پیش
<code>\glossary</code>	\ فرهنگ
<code>\glossaryentry</code>	\ فقره فرهنگ
<code>\graphpaper</code>	\ کاغذ گراف
<code>\guillemotleft</code>	\ گیومه چپ

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\guillemotright</code>	\گیمه راست
<code>\guilsinglleft</code>	\گیمه تکی چپ
<code>\guilsinglright</code>	\گیمه تکی راست
<code>\headheight</code>	\ارتفاع سر
<code>\headsep</code>	\جدا اگر سر
<code>\headtoname</code>	\سربه نام
<code>\heartsuit</code>	\دل
<code>\height</code>	\ارتفاع
<code>\hfill</code>	\پرا
<code>\hline</code>	\خطا
<code>\hoffset</code>	\مبدا
<code>\hrulefill</code>	\نوار ابر
<code>\hspace</code>	\فضا
<code>\huge</code>	\بزرگ
<code>\Huge</code>	\بزرگ تر
<code>\hyperlink</code>	\ابریوند
<code>\hypersetup</code>	\بار گذاری ابر
<code>\hypertarget</code>	\هدف ابر
<code>\hyphenation</code>	\خط پیوند
<code>\iff</code>	\اگر
<code>\IfFileExists</code>	\اگر پرونده موجود
<code>\ifthenelse</code>	\اگر آنگاه دیگر
<code>\include</code>	\شامل
<code>\includegraphics</code>	\شامل گرافیک
<code>\includeonly</code>	\تنها شامل
<code>\indent</code>	\تورفته
<code>\index</code>	\نمایه
<code>\indexentry</code>	\فقره نمایه
<code>\indexname</code>	\نام نمایه
<code>\indexspace</code>	\فضای نمایه
<code>\input</code>	\ورود
<code>\InputIfFileExists</code>	\ورود اگر پرونده موجود
<code>\intertext</code>	\بین متن
<code>\intertextsep</code>	\جدا اگر بین متن
<code>\invisible</code>	\مخفی
<code>\itdefault</code>	\پیش فرض ای
<code>\item</code>	\بند
<code>\itemindent</code>	\تورفتگی بند
<code>\itemsep</code>	\جدا اگر بند
<code>\itshape</code>	\شکل ای
<code>\kill</code>	\کشتن
<code>\label</code>	\برچسب
<code>\labelenumi</code>	\برچسب شمارش ی
<code>\labelenumii</code>	\برچسب شمارش د
<code>\labelenumiii</code>	\برچسب شمارش س
<code>\labelenumiv</code>	\برچسب شمارش چ
<code>\labelitemi</code>	\برچسب بندی
<code>\labelitemii</code>	\برچسب بندد

Continued on next page

Command in TeX or L^AT_EX Equivalent Persian Command

<code>\labelitemiii</code>	<code>\برچسب بندس</code>
<code>\labelitemiv</code>	<code>\برچسب بندچ</code>
<code>\labelsep</code>	<code>\جداگربرچسب</code>
<code>\labelwidth</code>	<code>\عرض برچسب</code>
<code>\language</code>	<code>\زبان</code>
<code>\large</code>	<code>\درشت</code>
<code>\Large</code>	<code>\درشت تر</code>
<code>\LARGE</code>	<code>\درشت درشت</code>
<code>\LaTeX</code>	<code>\لاٹک</code>
<code>\LaTeXe</code>	<code>\لاٹک ای</code>
<code>\ldots</code>	<code>\نقاط خ</code>
<code>\left</code>	<code>\چپ</code>
<code>\leftmargin</code>	<code>\حاشیه چپ</code>
<code>\line</code>	<code>\خط</code>
<code>\linebreak</code>	<code>\شکست خط</code>
<code>\linethickness</code>	<code>\ضخامت خط</code>
<code>\linewidth</code>	<code>\عرض خط</code>
<code>\listfigurename</code>	<code>\نام لیست شکل</code>
<code>\listfiles</code>	<code>\لیست پرونده ها</code>
<code>\listoffigures</code>	<code>\لیست شکل ها</code>
<code>\listoftables</code>	<code>\لیست لوح ها</code>
<code>\listparindent</code>	<code>\تورفتگی پارلیست</code>
<code>\listtablename</code>	<code>\نام لیست جدول</code>
<code>\LoadClass</code>	<code>\بارگذاری کلاس</code>
<code>\LoadClassWithOptions</code>	<code>\بارگذاری کلاس با گزینه ها</code>
<code>\location</code>	<code>\مکان</code>
<code>\mainmatter</code>	<code>\مطلب اصلی</code>
<code>\makebox</code>	<code>\ساخت کادر</code>
<code>\makeglossary</code>	<code>\ساخت فرهنگ</code>
<code>\makeindex</code>	<code>\ساخت نمایه</code>
<code>\makelabel</code>	<code>\ساخت برچسب</code>
<code>\makelabels</code>	<code>\ساخت برچسب ها</code>
<code>\MakeLowercase</code>	<code>\ساخت حروف کوچک</code>
<code>\maketitle</code>	<code>\ساخت عنوان</code>
<code>\MakeUppercase</code>	<code>\ساخت حروف بزرگ</code>
<code>\marginpar</code>	<code>\حاشیه پار</code>
<code>\marginparsep</code>	<code>\جداگرحاشیه پار</code>
<code>\marginparwidth</code>	<code>\عرض جداگرپار</code>
<code>\markboth</code>	<code>\نشان هر دو</code>
<code>\markright</code>	<code>\نشان راست</code>
<code>\mbox</code>	<code>\اس کادر</code>
<code>\medskip</code>	<code>\پرش متوسط</code>
<code>\medskipamount</code>	<code>\مقدار پرش متوسط</code>
<code>\medspace</code>	<code>\فضای متوسط</code>
<code>\MessageBreak</code>	<code>\شکست پیام</code>
<code>\multicolumn</code>	<code>\چندستونی</code>
<code>\name</code>	<code>\نام</code>
<code>\natural</code>	<code>\طبیعی</code>

Continued on next page

Command in \TeX or \LaTeX Equivalent Persian Command

<code>\narrow</code>	<code>\</code> باریک
<code>\NeedsTeXFormat</code>	<code>\</code> نیاز به فرم تک
<code>\neg</code>	<code>\</code> منفی
<code>\negmedspace</code>	<code>\</code> فضای متوسط منفی
<code>\negthickspace</code>	<code>\</code> فضای ضخیم منفی
<code>\negthinspace</code>	<code>\</code> فضای نازک منفی
<code>\newboolean</code>	<code>\</code> بولی نو
<code>\newcommand</code>	<code>\</code> فرمان نو
<code>\newcounter</code>	<code>\</code> شمارنده نو
<code>\newenvironment</code>	<code>\</code> محیط نو
<code>\newfont</code>	<code>\</code> قلم نو
<code>\newlength</code>	<code>\</code> طول نو
<code>\newline</code>	<code>\</code> خط نو
<code>\newpage</code>	<code>\</code> صفحه نو
<code>\newsavebox</code>	<code>\</code> کادر ذخیره نو
<code>\newtheorem</code>	<code>\</code> قضیه نو
<code>\nocite</code>	<code>\</code> بدون سند
<code>\nofiles</code>	<code>\</code> بدون پرونده
<code>\noindent</code>	<code>\</code> بدون تورفتگی
<code>\nolimits</code>	<code>\</code> بدون حد
<code>\nolinebreak</code>	<code>\</code> بدون شکست خط
<code>\nonfrenchspacing</code>	<code>\</code> فاصله گذاری غیر فرانسوی
<code>\nonumber</code>	<code>\</code> بدون شماره
<code>\nopagebreak</code>	<code>\</code> بدون شکست صفحه
<code>\normalcolor</code>	<code>\</code> رنگ نرمال
<code>\normalfont</code>	<code>\</code> قلم نرمال
<code>\normalmarginpar</code>	<code>\</code> حاشیه پار نرمال
<code>\normalsize</code>	<code>\</code> اندازه نرمال
<code>\notag</code>	<code>\</code> بدون اتیکت
<code>\numberwithin</code>	<code>\</code> شماره مطابق
<code>\oddsidemargin</code>	<code>\</code> حاشیه سمت چپ
<code>\onecolumn</code>	<code>\</code> یک ستون
<code>\onlynotes</code>	<code>\</code> تنها یادداشت ها
<code>\onlyslides</code>	<code>\</code> تنها اسلایدها
<code>\OptionNotUsed</code>	<code>\</code> گزینه استفاده نشد
<code>\PackageError</code>	<code>\</code> خطای بسته
<code>\PackageInfo</code>	<code>\</code> اطلاعات بسته
<code>\PackageWarning</code>	<code>\</code> هشدار بسته
<code>\PackageWarningNoLine</code>	<code>\</code> هشدار بسته بدون خط
<code>\pagebreak</code>	<code>\</code> شکست صفحه
<code>\pagecolor</code>	<code>\</code> رنگ صفحه
<code>\pagename</code>	<code>\</code> نام صفحه
<code>\pagenumbering</code>	<code>\</code> شماره گذاری صفحه
<code>\pageref</code>	<code>\</code> ارجاع صفحه
<code>\pagestyle</code>	<code>\</code> سبک صفحه
<code>\paperheight</code>	<code>\</code> ارتفاع برگ
<code>\paperwidth</code>	<code>\</code> عرض برگ
<code>\par</code>	<code>\</code> پار

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\paragraph</code>	\پاراگراف
<code>\parallel</code>	\موازی
<code>\parbox</code>	\کادرپار
<code>\parindent</code>	\تورفتگی پار
<code>\parsep</code>	\جداگری پار
<code>\parskip</code>	\پرش پار
<code>\part</code>	\قسمت
<code>\partname</code>	\نام قسمت
<code>\partopsep</code>	\جداگری بالای پار
<code>\PassOptionToClass</code>	\پاس گزینه به کلاس
<code>\PassOptionToPackage</code>	\پاس گزینه به بسته
<code>\path</code>	\مسیر
<code>\printindex</code>	\چاپ نمایه
<code>\ProcessOptions</code>	\پردازش گزینه‌ها
<code>\protect</code>	\حمایت
<code>\providecommand</code>	\تهیه فرمان
<code>\ProvidesClass</code>	\تهیه کلاس
<code>\ProvidesFile</code>	\تهیه پرونده
<code>\ProvidesPackage</code>	\تهیه بسته
<code>\raggedbottom</code>	\تنظیم پایین
<code>\raggedleft</code>	\تنظیم چپ
<code>\raggedright</code>	\تنظیم راست
<code>\raisebox</code>	\ترفیع کادر
<code>\raisetag</code>	\ترفیع اتیکت
<code>\rangle</code>	\زاویه ر
<code>\rceil</code>	\سقف ر
<code>\ref</code>	\رجوع
<code>\reflectbox</code>	\انعکاس کادر
<code>\refname</code>	\نام رجوع
<code>\refstepcounter</code>	\گام رجوع شمارنده
<code>\renewcommand</code>	\فرمان از نو
<code>\renewenvironment</code>	\محیط از نو
<code>\RequirePackage</code>	\نیاز به بسته
<code>\RequirePackageWithOptions</code>	\نیاز به بسته با گزینه
<code>\resizebox</code>	\انداز هاز نو کادر
<code>\reversemarginpar</code>	\حاشیه پار معکوس
<code>\rfloor</code>	\کف ر
<code>\right</code>	\راست
<code>\rmdefault</code>	\پیش فرض رم
<code>\rmfamily</code>	\خانواده رم
<code>\Roman</code>	\رومن بزرگ
<code>\roman</code>	\رومن
<code>\rotatebox</code>	\چرخاندن کادر
<code>\rule</code>	\نوار
<code>\savebox</code>	\ذخیره کادر
<code>\sbox</code>	\کادر ذ
<code>\scalebox</code>	\کادر مقیاس
<code>\sdefault</code>	\پیش فرض تمام بزرگ

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\scriptscriptstyle</code>	\سبک ته نوشت ته نوشت
<code>\scriptsize</code>	\اندازه ته نوشت
<code>\scriptstyle</code>	\سبک ته نوشت
<code>\section</code>	\بخش
<code>\see</code>	\ببینید
<code>\seealso</code>	\نیز ببینید
<code>\seename</code>	\نام ببینید
<code>\selectfont</code>	\انتخاب قلم
<code>\setboolean</code>	\تنظیم بولی
<code>\setcounter</code>	\تنظیم شماره نده
<code>\setlength</code>	\تنظیم طول
<code>\setminusminus</code>	\تنظیم منها
<code>\settodepth</code>	\تنظیم به عمق
<code>\settoheight</code>	\تنظیم به ارتفاع
<code>\settowidth</code>	\تنظیم به عرض
<code>\sfdefault</code>	\پیش فرض س ف
<code>\sffamily</code>	\خانواده س ف
<code>\shadowbox</code>	\کادر سایه دار
<code>\sharp</code>	\تیز
<code>\shortstack</code>	\پشته کوتاه
<code>\sldefault</code>	\پیش فرض خو
<code>\sloppy</code>	\نامرتب
<code>\slshape</code>	\شماایل خو
<code>\small</code>	\کوچک
<code>\smallskip</code>	\پرش کوچک
<code>\smallskipamount</code>	\مقدار پرش کوچک
<code>\smash</code>	\کوب
<code>\smile</code>	\لیخند
<code>\spadesuit</code>	\پیک
<code>\star</code>	\ستاره
<code>\stepcounter</code>	\گام شماره نده
<code>\stretch</code>	\کشش
<code>\subitem</code>	\زیر بند
<code>\subparagraph</code>	\زیر پاراگراف
<code>\subsection</code>	\زیر بخش
<code>\substack</code>	\زیر پشته
<code>\subsubitem</code>	\زیر زیر بند
<code>\subsubsection</code>	\زیر زیر بخش
<code>\subset</code>	\زیر مجموعه
<code>\subseteq</code>	\زیر مجموعه مس
<code>\tabbingsep</code>	\جدا اگر جدول بندی
<code>\tabcolsep</code>	\جدا اگر ستون جدول
<code>\tableofcontents</code>	\فهرست مطالب
<code>\tablename</code>	\نام لوح
<code>\tabularnewline</code>	\خط نو جدول
<code>\tag</code>	\اتیکت
<code>\telephone</code>	\تلفن
<code>\TeX</code>	\تک

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

\text	\متنی
\textbullet	\گلوله‌متنی
\textemdash	\ام‌دش‌متنی
\textendash	\ان‌دش‌متنی
\textexclamdown	\تعجب‌وارونه‌متنی
\textperiodcentered	\نقطه‌وسط‌متنی
\textquestiondown	\سوال‌وارونه‌متنی
\textquotedblleft	\نقل‌چپ‌متنی‌دولا
\textquotedblright	\نقل‌راست‌متنی‌دولا
\textquoteleft	\نقل‌متنی‌چپ
\textquoteright	\نقل‌متنی‌راست
\textvisiblespace	\فضای‌نمایان‌متنی
\textbackslash	\شکافت‌پشت‌متنی
\textbar	\میله‌متنی
\textgreater	\بزرگ‌تر‌متنی
\textless	\کمتر‌متنی
\textbf	\متن‌سیاه
\textcircled	\مدور‌متنی
\textcolor	\رنگ‌متن
\textcompwordmark	\نشان‌کلمه‌مرکب‌متن
\textfloatsep	\جدا‌اگر‌شناور‌متن
\textfraction	\کسر‌متن
\textheight	\ارتفاع‌متن
\textit	\متن‌ایتالیک
\textmd	\متن‌نازک
\textnormal	\متن‌نرمال
\textregistered	\ثبتي‌متنی
\textrm	\متن‌رومن
\textsc	\متن‌تمام‌بزرگ
\textsf	\متن‌سانز‌سریف
\textsl	\متن‌خوابیده
\textstyle	\سبک‌متنی
\textsuperscript	\بالا‌نویس‌متنی
\texttrademark	\علامت‌تجاری‌متنی
\texttt	\متن‌تایپ
\textup	\متن‌بالا
\textwidth	\عرض‌متن
\thanks	\تشکر
\thicklines	\خط‌هاضخیم
\thickspace	\فضا‌ضخیم
\thinlines	\خط‌هانازک
\thinspace	\فضا‌انازک
\thisfancypage	\این‌صفحه‌تجملی
\thispagestyle	\سبک‌این‌صفحه
\tilde	\مد
\tiny	\ریز
\times	\ضرب
\title	\عنوان

Continued on next page

Command in T_EX or L^AT_EX Equivalent Persian Command

<code>\to</code>	<code>\به</code>
<code>\today</code>	<code>\امروز</code>
<code>\top</code>	<code>\بالا</code>
<code>\topfigrule</code>	<code>\نواربالای شکل</code>
<code>\topfraction</code>	<code>\کسربالا</code>
<code>\topmargin</code>	<code>\حاشیه بالا</code>
<code>\topsep</code>	<code>\جداگر بالا</code>
<code>\topskip</code>	<code>\پرش بالا</code>
<code>\totalheight</code>	<code>\ارتفاع کلی</code>
<code>\triangle</code>	<code>\مثلث</code>
<code>\ttdefault</code>	<code>\پیش فرض تایپ</code>
<code>\ttfamily</code>	<code>\خانواده تایپ</code>
<code>\twocolumn</code>	<code>\دو ستون</code>
<code>\underline</code>	<code>\زیر خط</code>
<code>\updefault</code>	<code>\پیش فرض ایستاده</code>
<code>\usebox</code>	<code>\استفاده کادر</code>
<code>\usecounter</code>	<code>\استفاده شمارنده</code>
<code>\usefont</code>	<code>\استفاده فونت</code>
<code>\usepackage</code>	<code>\استفاده بسته</code>
<code>\value</code>	<code>\ارزش</code>
<code>\verb</code>	<code>\کبک</code>
<code>\vfill</code>	<code>\پررغ</code>
<code>\visible</code>	<code>\نمایان</code>
<code>\vline</code>	<code>\خط ع</code>
<code>\voffset</code>	<code>\مبداع</code>
<code>\vpageref</code>	<code>\ارجاع صفحه ع</code>
<code>\vref</code>	<code>\ارجاع ع</code>
<code>\vspace</code>	<code>\فضای ع</code>
<code>\whiledo</code>	<code>\مادام بکن</code>
<code>\widehat</code>	<code>\کلاه پهن</code>
<code>\widetilde</code>	<code>\مدپهن</code>
<code>\width</code>	<code>\عرض</code>

Table 2.2: The Equivalent L^AT_EX Environments

Environment in L^AT_EX	Equivalent Persian Environment
<code>abstract</code>	<code>چکیده</code>
<code>appendix</code>	<code>پیوست</code>
<code>array</code>	<code>آرایه</code>
<code>center</code>	<code>وسط</code>
<code>description</code>	<code>توضیح</code>
<code>document</code>	<code>نوشتار</code>
<code>enumerate</code>	<code>شماره بندی</code>
<code>figure</code>	<code>شکل</code>
<code>filecontents</code>	<code>محتویات پرونده</code>
<code>flushleft</code>	<code>چپ چین</code>
<code>flushright</code>	<code>راست چین</code>
<code>itemize</code>	<code>بنددار</code>
<code>letter</code>	<code>نامه</code>
<code>list</code>	<code>لیست</code>

Continued on next page

Environment in L ^A T _E X	Equivalent Persian Environment
longtable	جدول‌دراز
lrbox	کادرچ
math	ریاضی
matrix	ماتریس
minipage	صفحه کوچک
multicols	چندستونی‌ها
multline	چندخطی
note	یادداشت
overlay	انباشتن
picture	تصویر
quotation	اقتباس
quote	نقل
slide	اسلاید
sloppypar	پارنا مرتب
split	شکافتن
subarray	زیرآرایه
tabbing	جدول‌بندی
table	لوح
tabular	جدول
thebibliography	محتوای کتاب‌نامه
theindex	محتوای نمایه
titlepage	صفحه‌عنوان
verbatim	کلمه‌به‌کلمه
verse	شعر

2.4 A Sample Input T_EX File

Example 2.4: A Sample Input T_EX File

```

\documentclass{article}
\usepackage{xepersian}
\settextfont[Scale=1.5]{Scheherazade}
\title{<title>}
\author{<author>}
\begin{document}
\maketitle
\tableofcontents
\part{<text>}
...
\section{<text>}
...
\subsection{<text>}
...
\subsubsection{<text>}
...
\end{document}

```

2.5 Font Commands

2.5.1 Basic Font Commands

```
\settextfont [Options] {\font name} \setlatintextfont [Options] {\font name}  
\setdigitfont [Options] {\font name}
```

- ☞ Options in any font command in this documentation are anything that `fontspec` package provides as the option of loading fonts, except `Script` and `Mapping`.
- ☞ `\settextfont` will choose the default font for Persian texts of your document. This command is compulsory and if you do not use it at least once, you will get error saying that you should choose a Persian font by using this command.
- ☞ `\setlatintextfont` will choose the font for Latin texts of your document. If you do not use this command at all, the default `TeX` font (fonts used in this documentation) will be used for Latin texts of your document.
- ☞ `\setdigitfont` will choose the Persian font for digits in math mode. By using this command, digits in math mode will appear in Persian form and if you do not use this command at all, you will get default `TeX` font for digits in math mode and digits appear in their original form (Western).

2.5.2 Defining Extra Persian and Latin Fonts

```
\defpersianfont\CS [Options] {\font name}  
\deflatinfont\CS [Options] {\font name}
```

- ☞ With `\defpersianfont`, you can define extra Persian fonts.

Example 2.5: Example Of Using `\defpersianfont`

```
\defpersianfont\Nastaliq[Scale=1]{IranNastaliq}
```

In this example, we define `\Nastaliq` to stand for `Nastaliq` font.

- ☞ With `\deflatinfont`, you can define extra Latin fonts.

Example 2.6: Example Of Using `\deflatinfont`

```
\deflatinfont\junicode[Scale=1]{Junicode}
```

In this example, we define `\Junicode` to stand for `Junicode` font.

2.5.3 Choosing Persian Sans Font

```
\setpersiansansfont [Options] {<font name>}  
\persiansffamily \textpersiansf{<text>}
```

2.5.4 Choosing Persian Mono Font

```
\setpersianmonofont [Options] {<font name>}  
\persianttfamily \textpersiantt{<text>}
```

2.5.5 Choosing Persian Iranic Font

```
\setiraniconfont [Options] {<font name>}  
\iraniconfamily \textiranicon{<text>}
```

2.5.6 Choosing Persian Navar Font

```
\setnavarfont [Options] {<font name>}  
\navarfamily \textnavar{<text>}
```

2.5.7 Choosing Persian Pook Font

```
\setpookfont [Options] {<font name>}  
\pookfamily \textpook{<text>}
```

2.5.8 Choosing Persian Sayeh Font

```
\setsayehfont [Options] {<font name>}  
\sayehfamily \textsayeh{<text>}
```

2.5.9 Choosing Latin Sans Font

```
\setlatinsansfont [Options] {<font name>}  
\sffamily \textsf{<text>}
```

2.5.10 Choosing Latin Mono Font

```
\setlatinmonofont [Options] {<font name>}  
\ttfamily \texttt{<text>}
```

2.6 Latin and Persian Environment

```
\begin{latin} <text> \end{latin}  
\begin{persian} <text> \end{persian}
```

☞ latin environment both changes direction of the paragraphs to LTR and font to Latin font.

☞ persian environment both changes direction of the Paragraphs to RTL and font to Persian font.

2.7 Latin and Persian Commands

```
\Latin \Persian
```

- ☞ `\Latin` command both changes direction of the paragraphs to LTR and font to Latin font.
- ☞ `\Persian` command both changes direction of the Paragraphs to RTL and font to Persian font.

2.8 Short Latin and Persian Texts

```
\lr{<text>} \rl{<text>}
```

- ☞ With `\lr` command, you can typeset short LTR texts.
- ☞ With `\rl` command, you can typeset short RTL texts.

2.9 Miscellaneous Commands

```
\today \latintoday \twocolumnstableofcontents \XePersian  
\plq \prq
```

- ☞ `\today` typesets current Persian date and `\latintoday` typesets current Latin date.
- ☞ `\twocolumnstableofcontents` typesets table of contents in two columns. This requires that you have loaded `multicol` package before `XƎPersian` package, otherwise an error will be issued.
- ☞ `\XƎPersian` typesets `XƎPersian`'s logo.
- ☞ `\plq` and `\prq` typeset Persian left quote and Persian right quote respectively.

2.10 Additional Counters

`XƎPersian` defines several additional counters to what already `LATEX` offers. These counters are `harfi`, `adadi`, and `tartibi`.

2.11 Things To Know About `\setdigitfont`

```
\DefaultMathsDigits \PersianMathsDigits \AutoMathsDigits
```

- ☞ As we discussed before, `\setdigitfont` will choose the Persian font for digits in math mode. By using this command, digits in math mode will appear in Persian form and if you do not use this command at all, you will get default `TEX` font for digits in math mode and digits appear in their original form (Western).

If you use `\setdigitfont`, you should the know that:

- ☞ By default, `\AutoMathsDigits` is active, which means that in Persian mode, you get Persian digits in math mode and in Latin mode, you get `TEX`'s default font and digits in math mode.
- ☞ If you use `\PersianMathsDigits` anywhere, you will overwrite `XƎPersian`'s default behaviour and you will always get Persian digits in math mode.

☞ If you use `\DefaultMathsDigits` anywhere, again you will overwrite X_qPersian’s default behaviour and you will always get T_EX’s default font and digits in math mode.

☞ When you use `\setdigitfont`, you also will change the font used inside `\mathbf`, `\mathit` and `\dots`, which means both letters and digits inside say `\mathbf` will be typeset in your chosen font. Please do not contact me, saying this is a bug, this is done on purpose and if I see such email, I will ignore it.

2.12 Bilingual Captions

X_qPersian sets caption bilingually. This means if you are in RTL mode, you get Persian caption and if you are in LTR mode, you get English caption.

2.13 Support For Various Packages

In addition to what `bidi` package supports, X_qPersian also support a few packages. This support is more about language aspect rather than directionality. These packages are `algorithmic`, `algorithm,enumerate`, and `backref` packages.

2.13.1 Things You Should Know about Support For `enumerate` Package

The `enumerate` package gives the `enumerate` environment an optional argument which determines the style in which the counter is printed.

An occurrence of one of the tokens `A`, `a`, `I`, `i`, or `1` produces the value of the counter printed with (respectively) `\Alph`, `\alph`, `\Roman`, `\roman` or `\arabic`.

In addition with the extra support that X_qPersian provides, an occurrence of one of the tokens `ا`, `ی`, or `ت` produces the value of the counter printed with (respectively) `\harfi`, `\adadi`, or `\tartibi`.

These letters may be surrounded by any strings involving any other T_EX expressions, however the tokens `A`, `a`, `I`, `i`, `1`, `ا`, `ی`, `ت` must be inside a `{}` group if they are not to be taken as special.

To see an Example, please look at `enumerate` package documentation.

2.14 Index Generation

For generating index, you are advised to use `xindy` program, any other program such as `makeindex` is not recommended.

With X_qPersian package, the file `persian.xdy` comes that should be in `doc` folder. To generate index, you will need to put `persian.xdy` file in the current directory and then open a terminal/-command prompt and do the following:

```
tex2xindy < filename.idx > filename.raw
xindy -I xindy -M persian.xdy filename.raw
```

Please note that this way of generating index with the `xindy` program is temporary and it will definitely be removed in the next version of X_qPersian. We will have Persian support to the main `xindy` program in the next version of X_qPersian. This perfectly means that by the next version of X_qPersian’s package, we will be able to use `glossaries` package too for making Persian and Latin glossaries.

2.15 Converting Your Farsi \TeX Files To X q Persian or Unicode

There is a python program written by Mostafa Vahedi that enables you to convert Farsi \TeX files to X q Persian or unicode. This program can be found in `doc` folder with the name `ftxe-0.11.py`. To convert your Farsi \TeX files to X q Persian, put `ftxe-0.11.py` in the same directory that your Farsi \TeX file is, and then open a terminal/command prompt and do the following:

```
python ftxe-0.11.py file.ftx file.tex
```

This will convert your `file.ftx` (Farsi \TeX file) to `file.tex` (X q Persian file).

The general syntax of using the python script is as follow:

```
python ftxe-0.11 [-r] [-s] [-x] [-u] input-filename1 input-filename2
```

Where

- `-r` (DEFAULT) recursively consider files included in the given files
- `-s` do not recursively consider files
- `-x` (DEFAULT) insert X q Persian related commands
- `-u` only convert to unicode (and not to X q Persian)

Please note that the python script will not work with versions of python later than 2.6. So you are encouraged to use version 2.6 of python to benefit from this python script.

Chapter 3

Extra Packages And Classes

3.1 Magazine Typesetting

3.1.1 Introduction

xepersian-magazine class allows you to create magazines, newspapers and any other types of papers. The output document has a front page and as many inner pages as desired. Articles appear one after another, telling the type, number of columns, heading, subheading, images, author and so forth. It is possible to change the aspect of (almost) everything therefore it is highly customisable. Commands to add different titles, headings and footers are also provided.

3.1.2 Usage

To create¹ a magazine just load the class as usual², with

```
\documentclass [Options] {xepersian-magazine}
```

at the beginning of your source file. The class options are described in [subsection 3.1.6](#).

From this point it is possible to include packages and renew class commands described in [subsection 3.1.5](#).

3.1.3 Front Page

As every magazine, xepersian-magazine has its own front page. It includes main headings, an index, the magazine logo and other useful information. This environment should be the first you use within xepersian-magazine class but it is not mandatory.

```
\firstimage \firstarticle
```

The first two commands you can use inside the `frontpage` environment are `\firstimage` and `\firstarticle` which include, respectively, the main image and the main heading in the front page. The first one takes two arguments $\langle image \rangle$ and $\langle description \rangle$. Notice that second argument is optional and it declares the image caption; $\langle image \rangle$ defines the relative path to the image. In order to include the first piece of article use

¹For a sample file, please look at `magazine-sample.tex` in the `doc` folder

²You also need to load `graphicx`, `xunicode` and `xepersian` packages respectively, after loading the document class and choose fonts for the main text, Latin text and digits in maths formulas. For more detail see [chapter 2](#) of the documentation.

```
\firstarticle{<title>}{<opening>}{<time>}
```

first two arguments are mandatory and represent heading and the opening paragraph. Last argument is optional (you can leave it blank) and indicates the time when article happened.

```
\secondarticle
```

The second piece of article is included using the command `\secondarticle` just as the first article. The main difference are that this second piece has two more arguments and it does not include an image.

```
\secondarticle{<title>}{<subtitle>}{<opening>}{<pagesof>}{<time>}
```

The new arguments `<subtitle>` and `<pagesof>` define a subtitle and the name of the section for this piece of article.

```
\thirdarticle
```

The third piece of article is the last one in the `xepersian-magazine` front page. It works like the `\secondarticle`.

```
\thirdarticle{<title>}{<subtitle>}{<opening>}{<pagesof>}{<time>}
```

The arguments meaning is the same as `\secondarticle` command.

The front page includes three information blocks besides the news: `indexblock` which contains the index, `authorblock` which includes information about the author and a `weatherblock` containing a weather forecast. All these three environments are mostly a frame in the front page therefore they can be redefined to fit your personal wishes but I kept them to give an example and to respect the original `xepersian-magazine` format.

```
\indexitem
```

The `indexblock` environment contains a manually edited index of `xepersian-magazine`. It takes one optional argument `<title>` and places a title over the index block. To add entries inside the index just type

```
\indexitem{<title>}{<reference>}
```

inside the environment. The `<title>` is the index entry text and the `<reference>` points to a article inside `xepersian-magazine`. It will be more clear when you read [subsection 3.1.4](#). In order to get a correct output, it is necessary to leave a blank line between index items.

The `authorblock` environment can include whatever you would like. I called it `authorblock` because I think it is nice to include some author reference in the front page: who you are, why are you doing this... This environment creates a frame box in the bottom right corner of the front page with your own logo at the top.

```
\weatheritem
```

Finally, the `weatherblock` lets you include a weather forecast. It takes one optional argument `<title>` that places a title over the weather block. It can fit up to three weather icons with maximum and minimum temperatures, description and name. To add each of the weather entries type the following

```
\weatheritem{<image>}{<day-name>}{<max>}{<min>}{<short-des>}
```

The first argument includes the path to the weather icon (i.e. sunny or rainy), *<day-name>* like Monday, *<max>* and *<min>* are the highest and lowest day temperatures and *<short-des>* is a brief description of the weather condition: partly cloudy, sunny and windy ...

3.1.4 Inside

Once we have created the front page we should include all articles inside our magazine. `xepersian-magazine` arranges all articles one after each other, expanding headings all over the page and splitting the article text in the number of columns we wish. There are three different environments to define a piece of article: the `article` environment described in [section 3.1.4](#), the `editorial` environment [section 3.1.4](#) for opinion articles and the `shortarticle` environment explained in [section 3.1.4](#).

The article environment

The main environment to include a piece of article is called `article`. It takes four arguments that set up the headings and structure of the article.

```
\begin{article}{<num-of-columns>}{<title>}{<subtitle>}{<pagesof>}{<label>}  
... <text> ...  
\end{article}
```

The first argument *<num-of-columns>* sets the number of columns the article will be divided whereas *<label>* is used when pointing an article from the index in the front page. The rest of the arguments are easy to understand.

Inside the `article` environment, besides the main text of the article, it is possible to include additional information using several class commands.

```
\authorandplace \timestamp
```

The `\authorandplace{<author>}{<place>}` inserts the name of the editor and the place where the article happened in the way many magazines do. Another useful command is `\timestamp{<time>}` which includes the time and a separator just before the text. These two commands should be used before the text because they type the text as the same place they are executed.

```
\image
```

To include images within the text of an article, `xepersian-magazine` provides an `\image` command. Since `multicol` package does not provide any float support for its `multicols` environment, I created a macro that includes an image only if that is possible, calculating if there is enough space for the image. It is not the best solution but it works quite well and I could not find a better one. To include an image use the command and its two arguments: the relative path to the image and a short description.

```
\image{<image>}{<description>}
```

```
\columntitle \expandedtitle
```

Within the text of the article, it is possible to add column and expanded titles. The main difference between them is that the first one keeps inside the width of an article column whereas the second expands all over the width of the page, breaking all the columns. Their use is analogous, as follows

```
\columntitle{<type>}{<text>}
\expandedtitle{<type>}{<text>}
```

These two commands use `fancybox` package features. That is why there are five different types of titles which correspond mainly with `fancybox` ones: `shadowbox`, `doublebox`, `ovalbox`, `Ovalbox` and `lines`.

The editorial environment

In addition to the editorial article environment, one can use the editorial environment to create editorial or opinion texts. The main feature is that it transforms the style of the heading. Although this environment accepts all the commands article takes, it does not make any sense to use the `\authorandplace` command within it since it includes an author argument. To create an editorial text use

```
\begin{editorial}{<num-of-columns>}{<title>}{<author>}{<label>}
... <text>...
\end{editorial}
```

All arguments have the same meaning as article environment (see [section 3.1.4](#)).

The shortarticle environment

The shortarticle environment creates a block of short article. Although it has its own title and subtitle, each piece of article within it may have a title. To use it just type:

```
\begin{shortarticle}{<num-of-columns>}{<title>}{<subtitle>}{<label>}
... <text>...
\shortarticleitem{<title>}{<text>}
...
\end{shortarticle}
```

You can also specify the number of columns of the block like editorial and article environments. To add a piece of article inside the shortarticle use the `\shortarticleitem`, indicating a title and the text of the issue.

Commands between articles

```
\articlesep \newsection
```

There are two commands you can use among the articles inside `xepersian-magazine`: `\articlesep` and `\newsection`. The first one does not take any parameter and just draws a line between two articles. The second changes the content of `\xepersian@section` to the new `<section name>`. From the point it is used, all articles which follow will be grouped within the new section.

```
\newsection{<section name>}
```

3.1.5 Customization

`xepersian-magazine` includes many commands which can be used to customize its aspect, from the front page to the last page. I will list them grouped so it is easy to find them. Treat them as standard \LaTeX commands, using `\renewcommand` to change their behaviour.

Front Page

```
\customlogo \customminilogo \custommagazinename
```

When creating a magazine, everyone wants to show its own logo instead of `xepersian-magazine` default heading. To achieve this, you need to put the following command at the preamble of your document:

```
\customlogo{<text>}
\customminilogo{<text>}
\custommagazinename{<text>}
```

```
\edition \editionformat
```

The edition text has to be declared in the preamble of the document. One important thing to know is that `\author`, `\date` and `\title` have no effect inside `xepersian-magazine` since the magazine date is taken from `\today` command and the other two are only for the title page (if using `\maketitle`).

```
\indexFormat \indexEntryFormat \indexEntryPageTxt \indexEntryPageFormat
\indexEntrySeparator
```

When defining the index in the front page, there are several commands to customize the final index style. `\indexFormat` sets the format of the title; `\indexEntryFormat`, the format of each index entry; `\indexEntryPageTxt` and `\indexEntryPageFormat` lets you define which is the text that goes with the page number and its format. Finally, `xepersian-magazine` creates a thin line between index entries, you can redefine it using `\indexEntrySeparator`. To get the index with `\xepersian@indexwidth` is provided.

```
\weatherFormat \weatherTempFormat \weatherUnits
```

Relating to the weather block, the title format can be changed redefining `\weatherFormat`. In order to customize the format of the temperature numbers and their units it is necessary to redefine `\weatherTempFormat` and `\weatherUnits` respectively.

```
\*TitleFormat \*SubtitleFormat \*TextFormat
```

The main article that appear in the front page can change their formats. To obtain that there are three standard commands to modify the title, subtitle and text style. You just have to replace the star (*) with first, second or third depending on which article you are editing. Note that first piece of article has no subtitle therefore it does not make any sense to use the non-existent command `\firstSubtitleFormat`.

```
\pictureCaptionFormat \pagesFormat
```

Two other elements to configure are the picture captions and the pages or section format in the entire document. To proceed just redefine the macros `\pictureCaptionFormat` and `\pagesFormat`.

Inside The Magazine

```
\innerTitleFormat \innerSubtitleFormat \innerAuthorFormat \innerPlaceFormat
```

The articles inside `xepersian-magazine` may have a different format from the ones in the front page. To change their title or subtitle format redefine `\innerTitleFormat` and `\innerSubtitleFormat`. The article text format matches the document general definition. When using the `\authorandplace`

command, you might want to change the default style. Just renew `\innerAuthorFormat` and `\innerPlaceFormat` to get the results.

```
\timestampTxt \timestampSeparator \timestampFormat
```

The `\timestamp` command described in [section 3.1.4](#) lets you introduce the time of the event before the article text. You can configure its appearance by altering several commands: `\timestampTxt` which means the text after the timestamp; `\timestampSeparator` which defines the element between the actual timestamp and the beginning of the text and, finally, `\timestampFormat` to change the entire timestamp format.

```
\innerTextFinalMark
```

xepersian-magazine puts a small black square at the end of the article. As I wanted to create a highly customizable L^AT_EX class I added the macro `\innerTextFinalMark` to change this black square. This item will appear always following the last character of the text with the `~` character.

```
\minraggedcols \raggedFormat
```

The `\minraggedcols` counter is used to tell xepersian-magazine when article text should be ragged instead of justified. The counter represents the minimum number of columns that are needed in order to use ragged texts. For example, if `\minraggedcols` is set to 3, all articles with 3 columns or more will be ragged. Articles with 1, 2 columns will have justified text. By default, `\minraggedcols` is set to 4.

The `\raggedFormat` macro can be redefined to fit user ragged style. Default value is `\RaggedLeft`.

```
\heading \foot
```

xepersian-magazine includes package `fancyhdr` for changing headings and footers. Although it is possible to use its own commands to modify xepersian-magazine style, there are two commands to change headings and foot appearance. Place them in the preamble of your xepersian-magazine document.

```
\heading{<left>}{<center>}{<right>}  
\foot{<left>}{<center>}{<right>}
```

If you still prefer to use `fancyhdr` macros, use them after the `frontpage` environment.

xepersian-magazine by default places no headers and footers. If you want headers and footers, then after loading xepersian package, you should write `\pagestyle{fancy}` at the preamble of your document.

3.1.6 Class Options

The xepersian-magazine class is in itself an alteration of the standard `article` class, thus it inherits most of its class options but `twoside`, `twocolumn`, `notitlepage` and `a4paper`. If you find problems when loading other article features, please let me know to fix it. There are also five own options that xepersian-magazine implements.

a3paper (false) This option makes xepersian-magazine 297 mm width by 420 mm height. This option is implemented because the standard `article` class does not allow this document size.

9pt (false) Allows the 9pt font size that `article` class does not include (default is 10pt).

columnlines columnlines (false) Adds lines between columns in the entire xepersian-magazine. The default line width is 0.1pt but it is possible to change this by setting length `\columnlines` in the preamble.

showgrid (false) This option is only for developing purposes. Because the front page has a personal design using the `textpos` package, I created this grid to make easier the lay out.

3.2 Typesetting Multiple-choice Questions

3.2.1 Introduction

`xepersian-multiplechoice` is a package for making multiple choices questionnaires under L^AT_EX. A special environment allows you to define questions and possible answers. You can specify which answers are correct and which are not. `xepersian-multiplechoice` not only formats the questions for you, but also generates a “form” (a grid that your students will have to fill in), and a “mask” (the same grid, only with correct answers properly checked in). You can then print the mask on a slide and correct the questionnaires more easily by superimposing the mask on top of students’ forms.

3.2.2 Usage

Here we now explain the usage of this package, however there are four example files, namely `test-question-only.tex`, `test-solution-form.tex`, `test-empty-form.tex` and `test-correction.tex`, available in `doc` folder that you may want to look at.

Loading The Package

You can load the package as usual by:

```
\usepackage [Options] {xepersian-multiplechoice}
```

The available options are described along the text, where appropriate.

Creating Questions

Here’s a simple example demonstrating how to produce a new question:

Example 3.1: Creating Questions With `xepersian-multiplechoice` Package

```
\begin{question}{<question>}
\false <answer1>
\true <answer2>
\false <answer3>
\false <answer4>
\end{question}
\begin{correction}
<real answer and reason why it is true>
\end{correction}
```

The question Environment

The `question` environment allows you to insert questions into your document. It takes one mandatory argument which specifies the actual question’s text. The question will be displayed in a frame box, the size of the line.

```
\true \false
```

The proposed answers are displayed below the question in a list fashion (the question environment is a list-based one). Instead of using `\item` however, use either `\true` or `\false` to insert a possible answer.

Question Numbers

The `question` environment is associated with a \LaTeX counter named `question`. This counter stores the number of the next (or current) question. It is initialized to 1, and automatically incremented at the end of `question` environments. You might want to use it to format question titles. For instance, you could decide that each question belongs to a subsection in the `article` class, and use something like this before each question: `\subsection*{Question \thequestion}`

The Form and the Mask

<code>\makeform</code> <code>\makemask</code>

Based on the questions appearing in your document, `xepersian-multiplechoice` has the ability to generate a “form” (a grid that your students will have to fill in), and a “mask” (the same grid, only with correct answers properly checked in). This can make the correction process easier.

To generate a form and a mask, use the macros `\makeform` and `\makemask`. `xepersian-multiplechoice` uses two auxiliary files to build them. These files have respectively an extension of `frm` and `msk`. If you use these macros, you will need two passes of \LaTeX in order to get a correctly formatted document.

Typesetting corrections

The “correction” mode allows you to automatically typeset and distribute corrections to your students. These corrections are slightly modified versions of your questionnaire: each possible answer is prefixed with a small symbol (a visual clue) indicating whether the answer was correct or wrong. In addition, you can typeset explanations below each question.

To activate the correction mode, use the `correction` option. It is off by default.

To typeset explanations below the questions, use the `correction` environment (no argument). The contents of this environment is displayed only in correction mode. In normal mode, it is simply discarded.

In addition, note that `xepersian-multiplechoice` cancels the actions performed by `\makeform` and `\makemask` in `correction` mode. This is to avoid further edition of the source when typesetting a correction.

3.2.3 Important Note

Currently, `xepersian-multiplechoice` requires that you provide a constant number of proposed answers across all questions in your `xepersian-multiplechoice`. This is something natural when you want to build forms, but this might be too restrictive otherwise, I’m not sure, so it is possible that this restriction will be removed in future versions.

Currently, there is a built-in mechanism for checking that the number of proposed answers remains constant: when `xepersian-multiplechoice` encounters the first occurrence of the `question` environment, it remembers the number of proposed answers from there. Afterwards, any noticed difference in subsequent occurrences will generate an error. As a consequence, you never have to tell `xepersian-multiplechoice` explicitly what that number is.

3.2.4 Customising The Package

The `question` environment

<code>\questionspace</code> <code>\answerstitlefont</code> <code>\answernumberfont</code>

`\questionspace` is the amount of extra vertical space to put under the question, before the list of proposed answers. This is a \LaTeX length that defaults to `0pt`.

Before the list of possible answers, a short title is displayed (for English, it reads “Possible answers:”). The `\answerstitlefont` macro takes one mandatory argument which redefines the font to use for the answers title. By default, `\bfseries` is used.

Each proposed answer in the list is numbered automatically (and alphabetically). The `\answernumberfont` macro takes one mandatory argument which redefines the font to use for displaying the answer number. By default, `\bfseries` is used.

The Form and the Mask

```
\headerfont \X
```

The `\headerfont` macro takes one mandatory argument which redefines the font to use for the headers (first line and first column) of the form and mask arrays. By default, `\bfseries` is used.

In the mask, correct answers are checked in by filling the corresponding cell with an “X” character. If you want to change this, call the `\X` macro with one (mandatory) argument.

The correction

```
\truesymbol \falsesymbol
```

In correction mode, labels in front of answers are modified to give a visual clue about whether the answer was correct or wrong. By default, a cross and a small arrow are used. You can change these symbols by using the `\truesymbol` and

`\falsesymbol` macros. For instance, you could give a fancier look to your correction by using the `pifont` package and issuing:

```
\truesymbol{\ding{'063}~}  
\falsesymbol{\ding{'067}~}
```

```
\correctionstyle
```

The appearance of the contents of the correction environment can be adjusted by using the `\correctionstyle` macro. By default, `\itshape` is used.