Installing LaTeX in your user space

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Chapter 1

Before you start

1.1 What this is all about

On many LINUX-based servers, a complete LaTeXPackage is preinstalled and available. Sometimes, you might need to add a few packages to your user's TeXMF tree, but, in general, you're good to go from the start. I started working, however, on a managed server where TeXLaTeX was not available and having it installed by the administrator simply was not an option. So I had to figure out a way to install my own LaTeX-Package (including KOMASCRIPT) in my user space.

1.2 What you'll need

This document assumes ...

- ... that you're on a LINUX-based server (I used OPENSUSE).
- ... that you have shell access.
- ... that you're able to download files from the internet.

This document further assumes that your user space is located under `/home` and your local LaTeX installation will end up in `/home/<user name>/usr/local/`. You will need to adapt the paths below if your home directory is located elsewhere.

Note: Of course, you could simply install LaTeX directly under your home directory, say, in `/home/<user name>/latex`. However, you might want to install further programs in user space in the future and it will prove a good strategy to mimic the usual `/usr/...` directory structure here as well.

Chapter 2

Installing LaTeX

2.1 Create a working directory

In your user space, create a working directory. For the purposes of this tutorial, we'll name it `~/latex`.

```
cd ~
mkdir latex
cd latex
```

2.2 Download the latest TeX Live distribution

For the purposes of this tutorial, we are going to install the widely-used TeX Live distribution. It's latest version can be downloaded from CTAN.

```
wget http://mirror.ctan.org/systems/texlive/tlnet/install-tl-unx.tar.gz
unzip install-tl-unx.tar.gz
```

This will give you a new directory `install-tl-xxxxxxxx`. The exact name depends on the release date of the TeX Live you're using. In my case, it was `install-tl-20100512`. Enter the directory and start the interactive installer.

```
cd install-tl-20100512
./install-tl
```

2.3 Using the interactive installer

The interactive installer will guide you through the many options for setting up a TeX Live system by using simple text menus. Each option is assigned a key on your keyboard. To navigate the menu, press the key corresponding to the option you want to select, followed by `Enter`.

2.3.1 Choose an installation scheme

Press `S` to select an installation scheme. On the following screen, press `a` to select a "'basic scheme"' and `R` to return to the main menu.

2.3.2 Choose your language collections

Press `L` to choose language collections. On the following screen, press `-` to deselect all languages, then select only the ones you need. Return to the main menu by pressing `R`.

2.3.3 Choose target directories

Press `D` to choose install directories. On the following screen, you will see a number of directory options. Since—with the exception of the last one—they are all located under one main directory, it will suffice to change the first option. Press `1` and enter `/home/<your user name>/usr/local/texlive` as the install directory. Return to the main menu by pressing `R`.

2.3.4 Setting options

On the main menu, press `O` to access the options screen. Press `F`, `D`, and `S` to select all option related to format files and font tree creation. Return to the main menu by pressing `R`.

2.3.5 Start the installation

Press `I` to start the installation. The installer will automatically download all necessary packages from CTAN and copy them to your server's harddisk.

Chapter 3

Installing KOMAScript

If you need KOMAScript available in your LaTeX environment, you will need to download and install it separately. Doing this is as easy as downloading and unpacking a single file. For the purpose of this tutorial, we will install it into your "'local"' TeXMF tree.

3.0.6 Downloading and unpacking KOMAScript

Enter your local TeXMF directory and get the KOMAScript sources from BerliOS. Note that the exact name of the file you need to download will depend on the version of KOMAScript you are using. Go to `http://developer.berlios.de/project/showfiles.php?group_id=4307` to find the latest version. In my case, it was KOMAScript 3.0.6., released on June 17, 2010.

```
cd ~/usr/local/texlive/texmf-local
wget http://prdownload.berlios.de/koma-script3/koma-script-20100617.tds.zip
unzip koma-script-20100617.tds.zip
rm koma-script-20100617.tds.zip
```

3.0.7 Update your TeX tree

The only thing that remains to do now is to tell the TeXLaTeX compilers where to find the new files. You can do that with a single command:

```
texhash
```