

$\text{T}_\text{E}\text{X}$ Live 的安装简单教程



耿楠

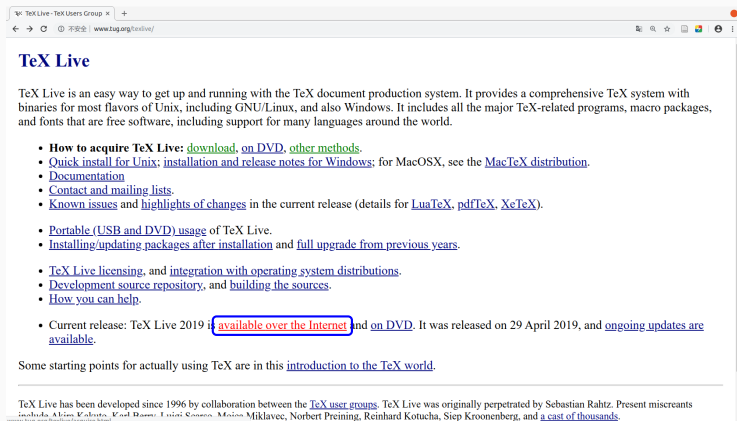
2019 年 春

西北农林科技大学教学发展中心

下载 T_EX Live



下载

<http://www.tug.org/texlive/> 单击 **T_EX Live** 2019 下载链接

The screenshot shows a web browser window with the address bar displaying "www.tug.org/texlive/". The page title is "TeX Live". The main content area has a heading "TeX Live" followed by a paragraph: "TeX Live is an easy way to get up and running with the TeX document production system. It provides a comprehensive TeX system with binaries for most flavors of Unix, including GNU/Linux, and also Windows. It includes all the major TeX-related programs, macro packages, and fonts that are free software, including support for many languages around the world."

Below the paragraph is a list of links:

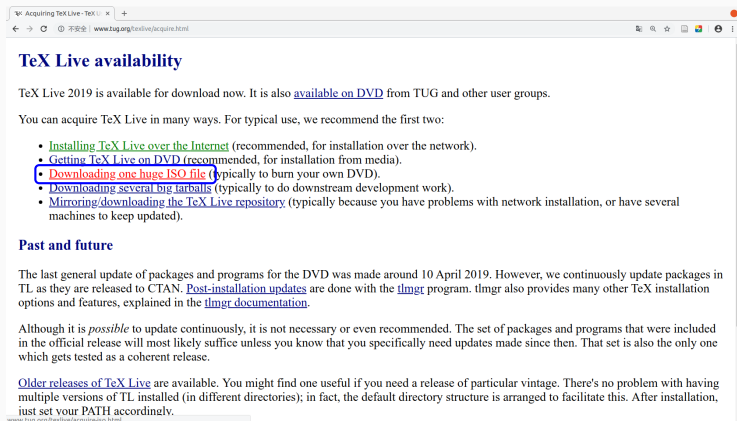
- **How to acquire TeX Live:** [download](#), [on DVD](#), [other methods](#).
- [Quick install for Unix](#): [installation and release notes for Windows](#); for MacOSX, see the [MacTeX distribution](#).
- [Documentation](#)
- [Contact and mailing lists](#).
- [Known issues](#) and [highlights of changes](#) in the current release (details for [LuaTeX](#), [pdfTeX](#), [XeTeX](#)).
- [Portable \(USB and DVD\) usage](#) of TeX Live.
- [Installing/updating packages after installation](#) and [full upgrade from previous years](#).
- [TeX Live licensing](#), and [integration with operating system distributions](#).
- [Development source repository](#), and [building the sources](#).
- [How you can help](#).
- Current release: TeX Live 2019 is [available over the Internet](#) and [on DVD](#). It was released on 29 April 2019, and [ongoing updates are available](#).

Some starting points for actually using TeX are in this [introduction to the TeX world](#).

At the bottom, a small text block reads: "TeX Live has been developed since 1996 by collaboration between the [TeX user groups](#). TeX Live was originally perpetrated by Sebastian Rahtz. Present miscreants include [Alvin Kobayashi](#), [Paul Ross](#), [Luigi Spina](#), [Maurice Miklavic](#), [Norbert Preining](#), [Reinhard Kotucha](#), [Siep Kroonenberg](#), and [a cast of thousands](#)."



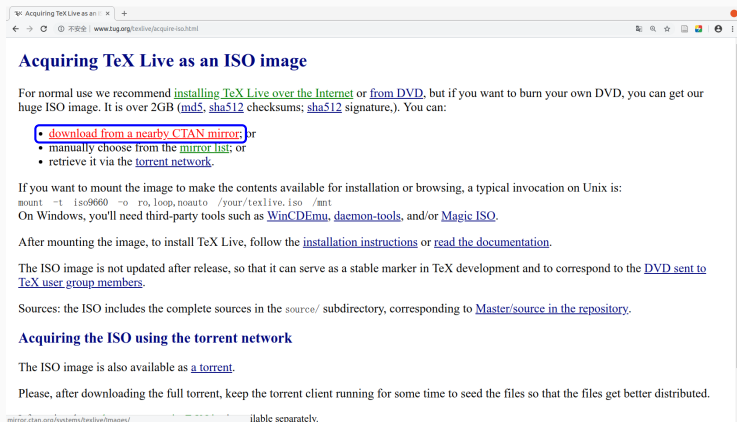
下载

<http://www.tug.org/texlive/> 单击**ISO 镜像文件**下载链接

👉 下载

🔗 <http://www.tug.org/texlive/> 📄

✍️ 自动选择**镜像网站**



The screenshot shows a web browser window with the title 'Acquiring TeX Live as an ISO image'. The page content includes instructions for downloading the ISO image, with a list of options: 'download from a nearby CTAN mirror', 'manually choose from the mirror list', and 'retrieve it via the torrent network'. The first option is highlighted with a red box. Below the list, there is a command for mounting the ISO on Unix and instructions for Windows users. The page also mentions that the ISO image is not updated after release and provides links to installation instructions, documentation, and the DVD sent to the user group members. At the bottom, it states that the ISO includes complete sources in the 'source/' subdirectory and is also available as a torrent. The page footer shows the URL 'mirror.ctan.org/systems/texlive/images/' and the text 'ilable separately.'

Acquiring TeX Live as an ISO image

For normal use we recommend [installing TeX Live over the Internet](#) or [from DVD](#), but if you want to burn your own DVD, you can get our huge ISO image. It is over 2GB ([md5](#), [sha512](#) checksums; [sha512](#) signature.). You can:

- [download from a nearby CTAN mirror](#); or
- manually choose from the [mirror list](#); or
- retrieve it via the [torrent network](#).

If you want to mount the image to make the contents available for installation or browsing, a typical invocation on Unix is:

```
mount -t iso9660 -o ro,loop,noauto /your/texlive.iso /mnt
```

On Windows, you'll need third-party tools such as [WinCDEmu](#), [daemon-tools](#), and/or [Magic ISO](#).

After mounting the image, to install TeX Live, follow the [installation instructions](#) or [read the documentation](#).

The ISO image is not updated after release, so that it can serve as a stable marker in TeX development and to correspond to the [DVD sent to TeX user group members](#).

Sources: the ISO includes the complete sources in the `source/` subdirectory, corresponding to [Master/source in the repository](#).

Acquiring the ISO using the torrent network

The ISO image is also available as [a torrent](#).

Please, after downloading the full torrent, keep the torrent client running for some time to seed the files so that the files get better distributed.

[mirror.ctan.org/systems/texlive/images/](#) ilable separately.



下载

<http://www.tug.org/texlive/>

任选 1 个下载 (3.3GiB)

Index of /mirrors_toolkit/CTAN/systems/texlive/Images/

File Name	File Size	Date
Parent directory/	-	-
README.md	1.1 KiB	2019-Apr-30 04:28
texlive2019-20190410.iso	3.3 GiB	2019-Apr-10 23:59
texlive2019-20190410.iso.md5	59 B	2019-Apr-10 23:59
texlive2019-20190410.iso.sha512	155 B	2019-Apr-10 23:59
texlive2019-20190410.iso.sha512.asc	455 B	2019-Apr-10 23:59
texlive2019.iso	3.3 GiB	2019-Apr-10 23:59
texlive2019.iso.md5	50 B	2019-Apr-10 23:59
texlive2019.iso.sha512	146 B	2019-Apr-10 23:59
texlive2019.iso.sha512.asc	455 B	2019-Apr-10 23:59

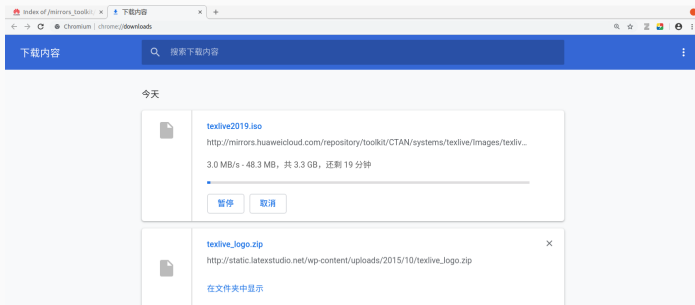
mirrors.huaweicloud.com/repository/toolkit/CTAN/systems/texlive/Images/texlive2019.iso



下载

<http://www.tug.org/texlive/>

开始下载



Downloading...

安装 T_EX Live















👉 打开终端

- 🖱️ : 右键开始菜单、空白处  + 、 +  & 
- 🖱️ :  +  + 
- 🖱️ :  +  搜索 Terminal、可在 Finder 中添加服务

👉 基本命令:

- 🖱️ `cd`、`ls/dir`、`rm/del`、`clear/cls`
- 🖱️ 选项: `-h`、`--help`、`/?`

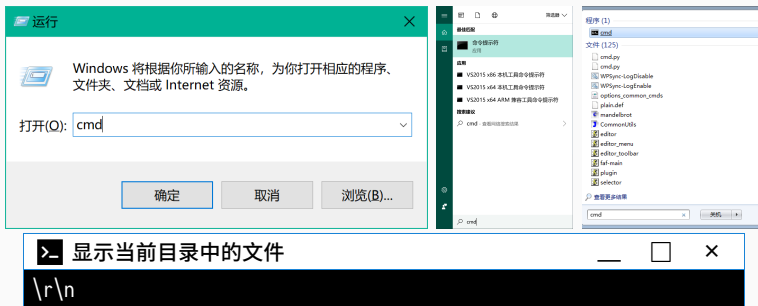
👉 其他:

- 🖱️ 复制粘贴:  +  + 、 + 、 + 
- 🖱️ 路径连接符: 斜线 (/) 或反斜线 (\)
- 🖱️ 换行符: LF () 或 CRLF ( )
- 🖱️ 结束进程:  + 

👉 文件路径及命名中**不要使用**中文、空格以及特殊符号

*本页面摘自曾祥东的“现代 L^AT_EX 入门讲座”讲义 .

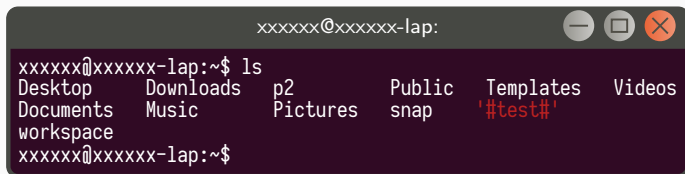
Windows 命令行窗口:  +  / 小娜 / 开始 & 



>_ 显示当前目录中的文件

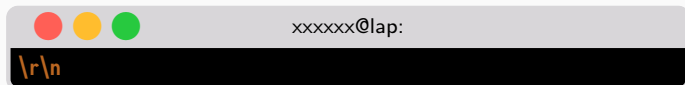
```
\r\n
```

- ☛ Ubuntu 终端窗口: Ctrl + Alt + T



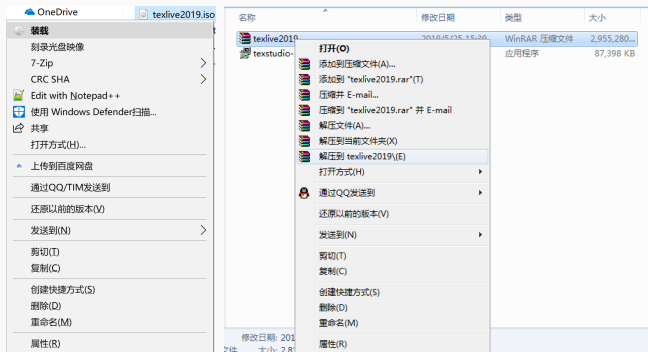
```
xxxxxx@xxxxxx-lap:~$ ls
Desktop    Downloads  p2         Public    Templates  Videos
Documents  Music      Pictures   snap      '#test#'
workspace
xxxxxx@xxxxxx-lap:~$
```

- ☛ MacOS 终端窗口: ⌘ + [] 搜索 Terminal



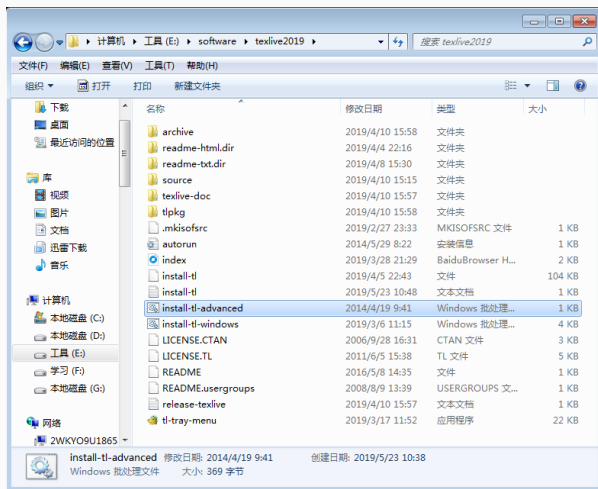
```
xxxxxx@lap:
\r\n
```

- 加载“texlive2019.iso”文件
 - ☞ Win10 直接装载或用虚拟光驱加载
 - ☞ Win7 及其它用虚拟光驱加载
- 解压“texlive2019.iso”文件



解压...

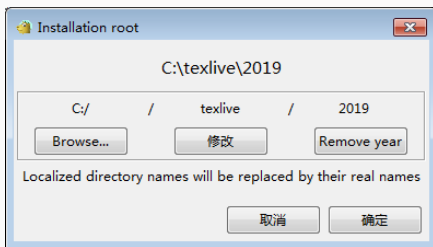
得到安装文件



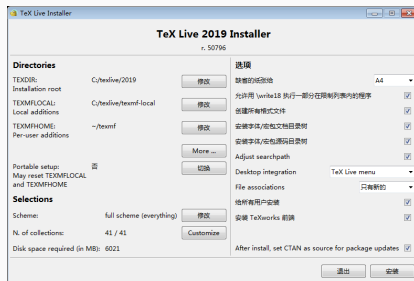
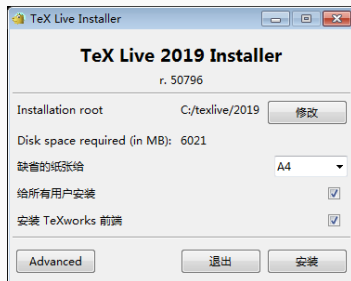
- 双击“install-tl-advanced”文件启动 T_EX Live 安装



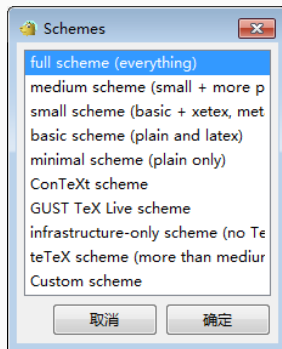
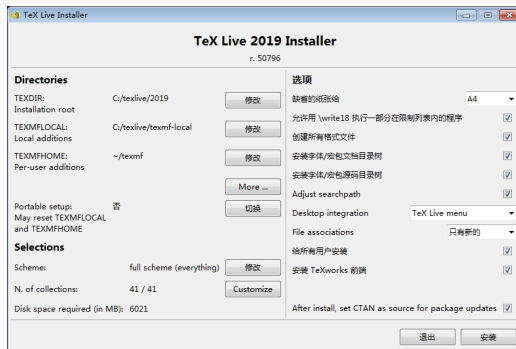
- 单击“Installation root”后的 **修改** 按钮可更改 **安装根目录**



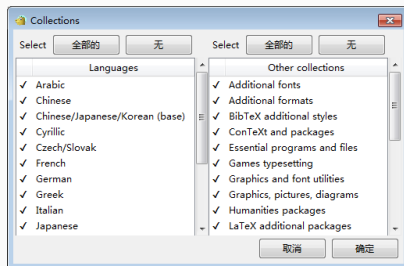
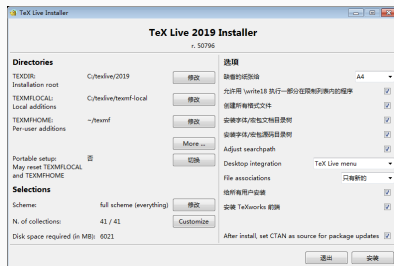
单击 **Advanced** 按钮可定制安装选项



单击“Scheme”后的 **修改** 按钮可选择安装方案

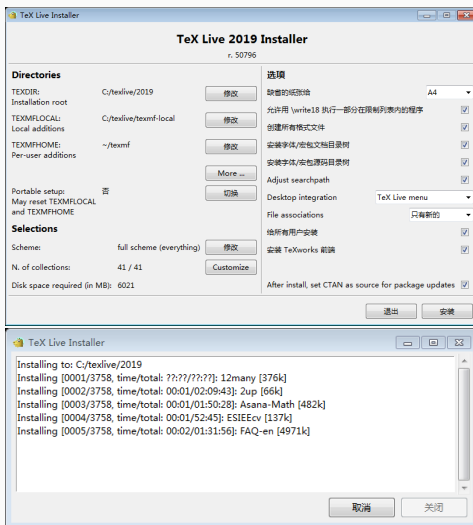


单击“collections”后的 **Customize** 按钮可选择安装宏包*



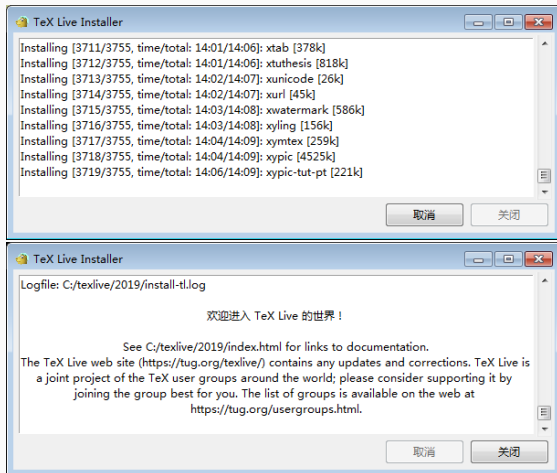
* 建议完整安装宏包，以备不时之需。

完成定制后单击 **安装** 进行 T_EX Live 2019 安装



安装...

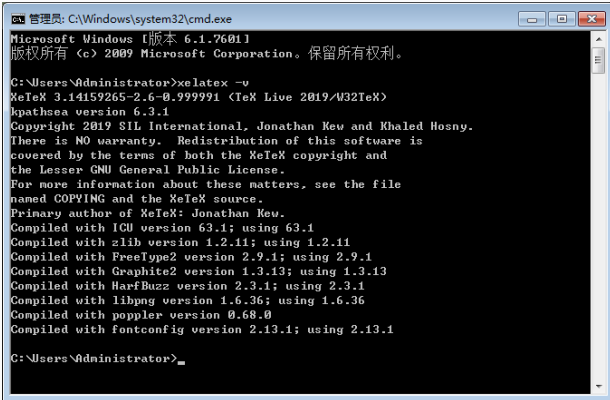
单击 **关闭** 完成 T_EX Live 2019 安装



检查 T_EX Live 2019 是否安装成功

打开命令行，输入：xelatex -v

正常：输出**版本**信息



```
管理员: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation。保留所有权利。

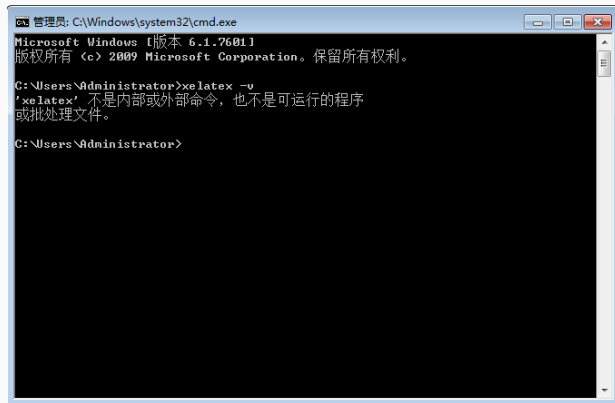
C:\Users\Administrator>xelatex -v
XeTeX 3.14159265-2.6-0.999991 <TeX Live 2019/W32TeX>
kpathsea version 6.3.1
Copyright 2019 SIL International, Jonathan Kew and Khaled Hosny.
There is NO warranty. Redistribution of this software is
covered by the terms of both the XeTeX copyright and
the Lesser GNU General Public License.
For more information about these matters, see the file
named COPYING and the XeTeX source.
Primary author of XeTeX: Jonathan Kew.
Compiled with ICU version 63.1; using 63.1
Compiled with zlib version 1.2.11; using 1.2.11
Compiled with FreeType2 version 2.9.1; using 2.9.1
Compiled with Graphite2 version 1.3.13; using 1.3.13
Compiled with HarfBuzz version 2.3.1; using 2.3.1
Compiled with libpng version 1.6.36; using 1.6.36
Compiled with poppler version 0.68.0
Compiled with fontconfig version 2.13.1; using 2.13.1

C:\Users\Administrator>_
```


👉 检查 T_EX Live 2019 是否安装成功

👉 打开命令行，输入：xelatex -v

👉 错误：输出**命令错误**，一般是**环境变量**配置错误造成的



```
管理员: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation。保留所有权利。

C:\Users\Administrator>xelatex -v
'xelatex' 不是内部或外部命令，也不是可运行的程序
或批处理文件。

C:\Users\Administrator>
```

👉 环境变量

👉 右击桌面上“ThePC”(Win10) 或“我的电脑”(Win7)

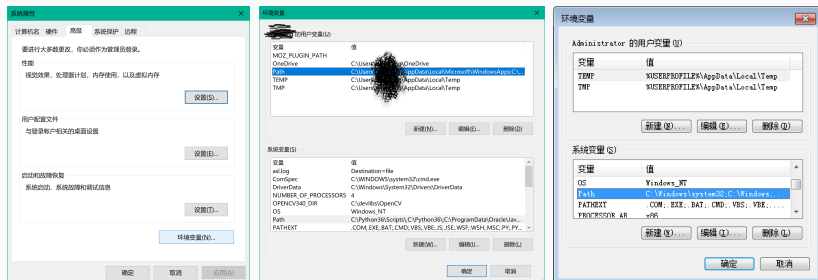
👉 选择 **属性** 打开系统属性对话框



➤ 环境变量

☞ 环境变量对话框

- ☞ 选择 **高级系统设置** 打开系统属性对话框
- ☞ 在系统属性对话框中 **环境变量** 打开环境变量对话框
- ☞ 可以对当前用户设置，也可以对系统用户进行设置



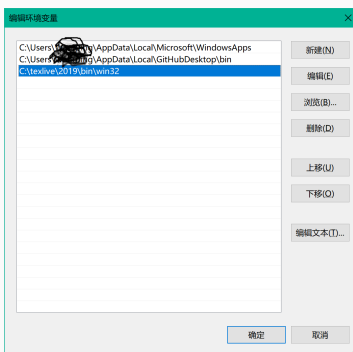
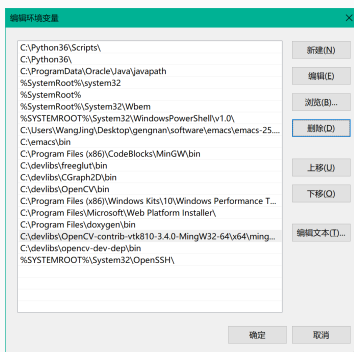
👉 环境变量

🔗 双击“Path”环境变量进行设置 (Win10)

🔗 通过 **新建** 按钮创建环境变量

🔗 通过 **编辑** 按钮编辑环境变量

🔗 将“T_EX Live 2019”的“bin”安装路径添加到环境变量



☛ 环境变量

☞ 双击“Path”环境变量进行设置 (Win7)

☞ 将“T_EX Live 2019”的“bin”安装路径添加到环境变量

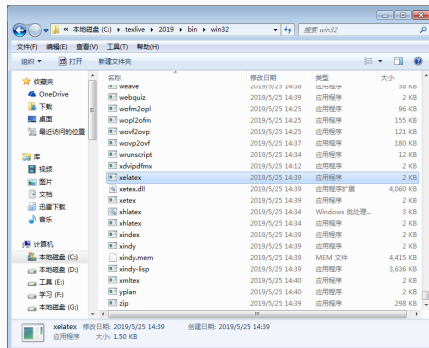


☛ 环境变量

☞ 需确保“T_EX Live 2019”的“bin”路径正确

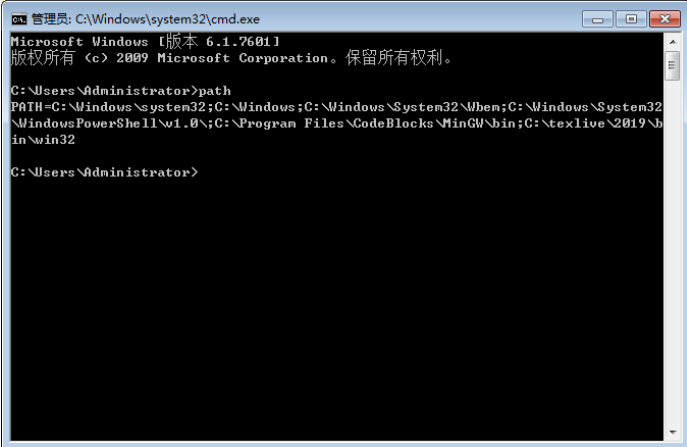
☞ 默认：`C:\texlive\2019\bin\win32`

☞ “**xelatex.exe**”等可执行文件所在的路径



☛ 环境变量

☞ 也可以在命令行用“path”命令查看环境变量



```
管理员: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation。保留所有权利。

C:\Users\Administrator>path
PATH=C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;C:\Program Files\CodeBlocks\MinGW\bin;C:\texlive\2019\bin\win32

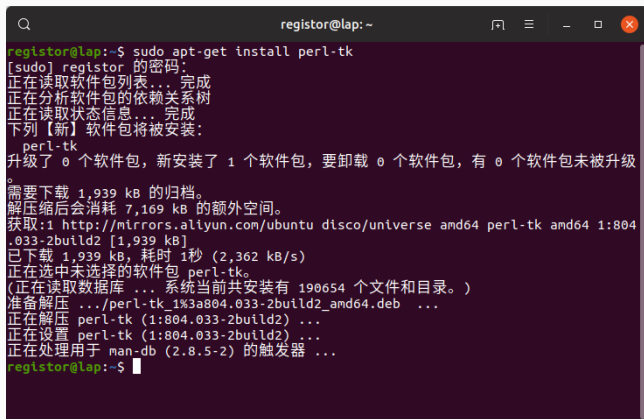
C:\Users\Administrator>
```

如果环境变量正确，还无法执行“xelatex -v”，
那就重装 T_EX Live 2019 吧！

☛ 图形化安装界面需安装“perl”的“tk”组件

☞ 打开终端：Ctrl + Alt + T

☞ 执行：sudo apt-get install perl-tk

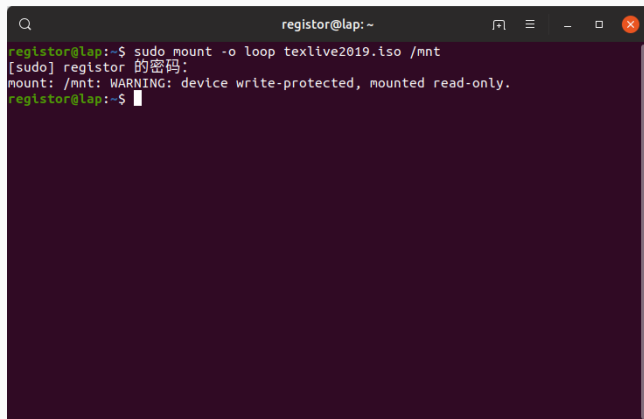


```
registor@lap: ~  
registor@lap:~$ sudo apt-get install perl-tk  
[sudo] registor 的密码：  
正在读取软件包列表... 完成  
正在分析软件包的依赖关系树  
正在读取状态信息... 完成  
下列【新】软件包将被安装：  
  perl-tk  
升级了 0 个软件包，新安装了 1 个软件包，要卸载 0 个软件包，有 0 个软件包未被升级。  
需要下载 1,939 kB 的归档。  
解压后会消耗 7,169 kB 的额外空间。  
获取:1 http://mirrors.aliyun.com/ubuntu disco/universe amd64 perl-tk amd64 1:804.033-2build2 [1,939 kB]  
已下载 1,939 kB，耗时 1 秒 (2,362 kB/s)  
正在选中未选择的软件包 perl-tk。  
(正在读取数据库 ... 系统当前共安装有 190654 个文件和目录。)  
准备解压 .../perl-tk_1%3a804.033-2build2_amd64.deb ...  
正在解压 perl-tk (1:804.033-2build2) ...  
正在设置 perl-tk (1:804.033-2build2) ...  
正在处理用于 man-db (2.8.5-2) 的触发器 ...  
registor@lap:~$
```

加载“texlive2019.iso”镜像文件

打开终端：Ctrl + Alt + T

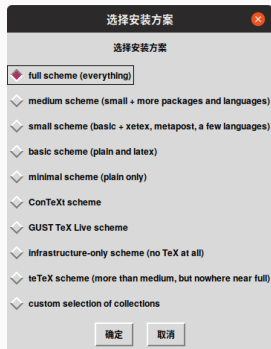
执行：sudo mount -o loop texlive2019.iso /mnt



```
registor@lap: ~  
registor@lap:~$ sudo mount -o loop texlive2019.iso /mnt  
[sudo] registor 的密码:  
mount: /mnt: WARNING: device write-protected, mounted read-only.  
registor@lap:~$
```


☛ 选择 T_EX Live 2019 安装方案及宏包组件*

☞ 使用 修改 按钮选择不同安装选项



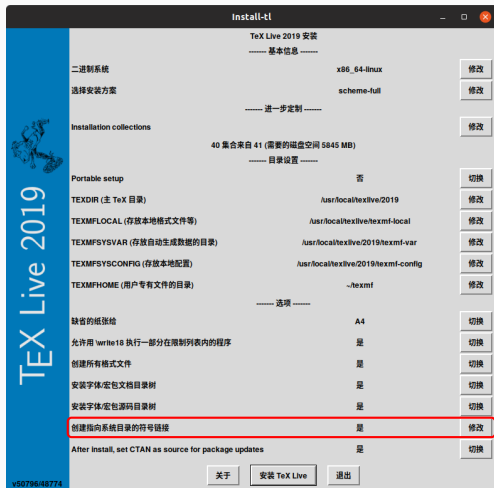
* 建议全部安装，以备不时之需。

- 选择 T_EX Live 2019 安装方案及宏包组件
 - 可以更改安装路径
 - 注意创建**指向系统目录的符号链接***



* 否则无法正确执行各个编译命令。

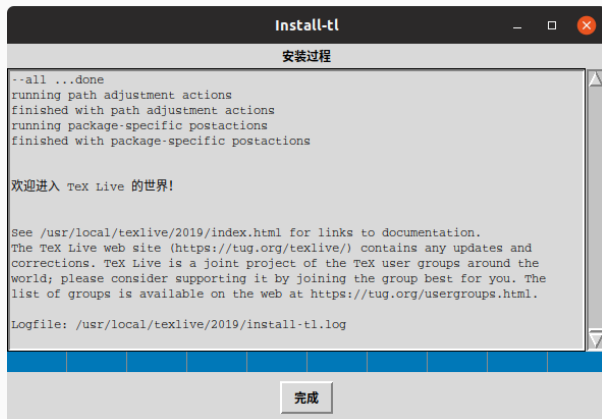
- ☛ 选择 T_EX Live 2019 安装方案及宏包组件
- ☞ 确认无误后，单击 **安装 T_EX Live** 进行安装



安装...

安装结束

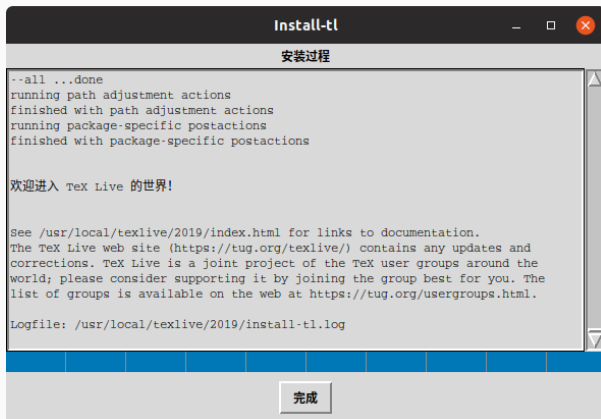
单击 **完成**



☛ 安装结束

☛ 单击 **完成**

☛ 卸载镜像文件: `cd /; sudo umount /mnt`

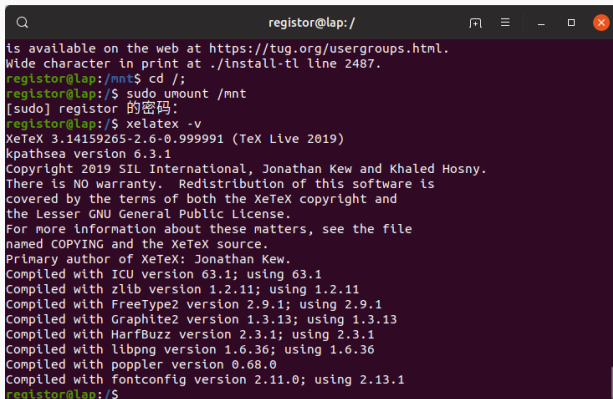


☛ 检查 T_EX Live 2019 是否安装成功

☞ 打开终端: Ctrl + Alt + T

☞ 输入命令: `xelatex -v`

🔗 正常: 输出**版本**信息



```
registor@lap: /  
is available on the web at https://tug.org/usergroups.html.  
Wide character in print at ./install-tl line 2487.  
registor@lap:/mnt$ cd /;  
registor@lap:/$ sudo umount /mnt  
[sudo] registor 的密码:  
registor@lap:/$ xelatex -v  
XeTeX 3.14159265-2.6-0.999991 (TeX Live 2019)  
kpathsea version 6.3.1  
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covered by the terms of both the XeTeX copyright and  
the Lesser GNU General Public License.  
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named COPYING and the XeTeX source.  
Primary author of XeTeX: Jonathan Kew.  
Compiled with ICU version 63.1; using 63.1  
Compiled with zlib version 1.2.11; using 1.2.11  
Compiled with FreeType2 version 2.9.1; using 2.9.1  
Compiled with Graphite2 version 1.3.13; using 1.3.13  
Compiled with HarfBuzz version 2.3.1; using 2.3.1  
Compiled with libpng version 1.6.36; using 1.6.36  
Compiled with poppler version 0.68.0  
Compiled with fontconfig version 2.11.0; using 2.13.1  
registor@lap:/$
```

如果无法执行“xelatex -v”，那就重装 T_EX Live 2019 吧!
特别要注意的是 **创建符号链接!**

更新 T_EX Live



✎ 执行“tlmgr”更新 T_EX Live 2019

✎ 打开命令行

✎ 输入命令：tlmgr update --self --all (Windows) *

✎ 输入命令：sudo tlmgr update --all (Ubuntu)

```

Wget [100%] http://mirror.lzu.edu.cn/CTAN/
Microsoft Windows [版本 6.1.7601]
版权所有 (c) 2009 Microsoft Corporation. 保留所有权利。

C:\Users\Administrator>tlmgr update --self --all
tlmgr.pl: package repository http://mirror.lzu.edu.cn/CTAN/systems/texlive/tlnet
(Got verified: gpg unavailible)
tlmgr.pl: saving backups to C:\texlive\2019\c\lpkg\backups
[ 1/226] auto-remove: mathalfa ... done
[ 2/226, ??:??/??:??] update: Asana-Math [662k] (37556 -> 50999) ... done
[ 3/226, 00:03:20:07] update: IEEEtran [564k] (38238 -> 51065) ... done
[ 4/226, 00:06:22:33] update: acnart [3949k] (50662 -> 51061) ... done
[ 5/226, 00:08:10:16] update: algolrevivd [863k] (44704 -> 51210) ... done
[ 6/226, 00:11:12:06] update: alterqem [963k] (23385 -> 51205) ... done
[ 7/226, 00:13:12:01] update: animate [3124k] (50278 -> 51009) ... done
[ 8/226, 00:15:09:50] update: archaeologin [1131k] (48763 -> 50908) ... done
[ 9/226, 00:17:10:02] update: asneconf [316k] (50045 -> 50977) ... done
[10/226, 00:21:12:03] update: babel [1410k] (50741 -> 50977) ... done
[11/226, 00:25:12:41] update: backnaur [232k] (28513 -> 51001) ... done

```

```

registor@lap:/$ sudo tlmgr update --all
tlmgr: package repository http://mirrors.tuna.tsinghua.edu.cn/CTAN/systems/texlive/tlnet (verified)
tlmgr: saving backups to /usr/local/texlive/2019/tlpkg/backups
[ 1/227] auto-remove: mathalfa ... done
[ 2/227, ??:??/??:??] update: Asana-Math [662k] (37556 -> 50999) ... done
[ 3/227, 00:02:19:22] update: IEEEtran [564k] (38238 -> 51065) ... done
[ 4/227, 00:03:15:42] update: acnart [3949k] (50662 -> 51061) ... done
[ 5/227, 00:06:07:26] update: algolrevivd [863k] (44704 -> 51210) ... done
[ 6/227, 00:08:08:29] update: alterqem [963k] (23385 -> 51205) ... done
[ 7/227, 00:09:08:14] update: animate [3124k] (50278 -> 51009) ... done
[ 8/227, 00:12:07:36] update: archaeologin [1131k] (48763 -> 50908) ... done
[ 9/227, 00:14:07:50] update: asneconf [316k] (50045 -> 50967) ... done
[10/227, 00:16:08:52] update: babel [1410k] (50741 -> 50977) ... done
[11/227, 00:17:00:23] update: backnaur [232k] (28513 -> 51001) ... done
[12/227, 00:19:09:13] update: baskerville [1248k] (49084 -> 51121) ... done
[13/227, 00:21:09:18] update: beamer-rl [183k] (50643 -> 50970) ... done
[14/227, 00:22:09:38] update: beebie [633k] (50834 -> 51108) ... done
[15/227, 00:23:09:39] update: bibzigs [7671k] (49293 -> 51008) ... done
[16/227, 00:28:08:02] update: biblatex-publist [327k] (50085 -> 50989) ... done
[17/227, 00:29:08:12] update: bldt [3058k] (50210 -> 50910) ... done
[18/227, 00:32:07:44] update: brads [676k] (23780 -> 51048) ... done
[19/227, 00:34:08:00] update: brandels-problemset [152k] (50737 -> 50991) ... done

```

*--self 用于更新 tlmgr 自身，也可以根据提示选择是否需要 --self 参数。

更新...

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