

התקנת TeX Live על Windows

שריה אנסבר

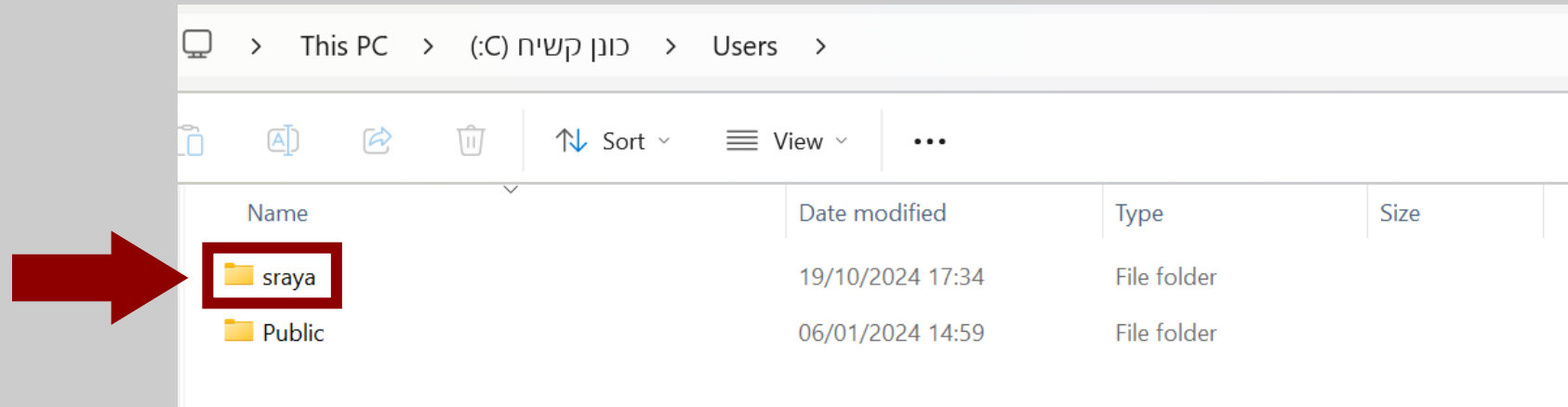
מדריך זה הוא חלק מסדרת מדריכים המופיעה באתר:

עבֵּלִיקָס - הכל על LyX, בעברית

<https://lyx.srayaa.com>

לפני שמתחילים

לפני הכל, עלינו לוודא שתיקיית המשתמש שלנו כתובה באנגלית, לשם כך ניכנס לכתובת <C:\Users>, ונחפש את תיקיית המשתמש כמתואר בצילום המסך:



טיפ: כדאי שתיקיית המשתמש תיכתב באנגלית מפני שהדבר יעזור לתוכנות נוספות.

אם תיקיית המשתמש כתובה בעברית (או בכל שפה אחרת), נצטרך ליצור חשבון Microsoft חדש, לקרוא את שמו באנגלית ולתת לו הרשאת אדמין. וכך יהיה לנו אדמין בעל תיקייה באנגלית.

[מדריך ליצירת חשבון Microsoft](#)
[מדריך להוספת חשבון חדש למחשב ולהגדרתו כאדמין](#)

הקדמה

נחלק את תהליך ההתקנה לארבעה חלקים:

1. תחילת ההתקנה - שהיא שונה בין התקנה דרך הרשת (over the internet), לבין התקנה ממאגר מקומי (local repository). הוראות לתחילת ההתקנה דרך הרשת מפורטות החל משקופית #4, והוראות לתחילת ההתקנה ממאגר מקומי מפורטות החל משקופית #10.
2. המשך התקנה כללי - החל מכאן אין זה משנה לנו היכן נמצא המאגר. בסיום שלב זה נסיים למעשה את ההתקנה, אלא שעלינו להתקין מספר חבילות נדרשות.
3. טעינת מאגר - בשלב זה נטען את המאגר שממנו נוריד את החבילות הנדרשות. מאגר זה אינו מוכרח להיות אותו מאגר שבשלב הראשון, ומכיוון שלא מדובר בהורדה גדולה מיקום המאגר אינו משנה הרבה.
4. הורדת חבילות נדרשות

תחילת ההתקנה דרך הרשת

ניכנס לדף: <https://www.tug.org/texlive/acquire-netinstall.html>
ונוריד ממנו את הקובץ "install-tl-windows.exe" (ראו צילום מסך).

Installing TeX Live over the Internet

TeX Live 2024 was released on March 13. Please allow a few days for it to make its way around CTAN.

For typical needs, we recommend starting the TeX Live installation by downloading (these links go to mirrors) [install-tl-windows.exe](#) for Windows (~20mb), or [install-tl-unx.tar.gz](#) (~5mb) for everything else. There is also a zip archive [install-tl.zip](#) (~25mb) which is the same as the .exe. Although the .zip archive works fine on all platforms, the .tar.gz is much smaller, since it omits installation support programs needed only on Windows. The archives are otherwise identical.

The above links use the [generic mirror.ctan.org url](#) which autoredirects to a CTAN mirror that should be reasonably nearby and reasonably up to date. However, perfect synchronization is not possible; if you have troubles following the links, your best bet is to replace the `mirror.ctan.org` in the above urls with a specific host from the [list of CTAN mirrors](#).

After unpacking the archive, change to the resulting `install-tl-*` subdirectory. Then follow the [quick installation instructions](#) or [read the documentation](#).

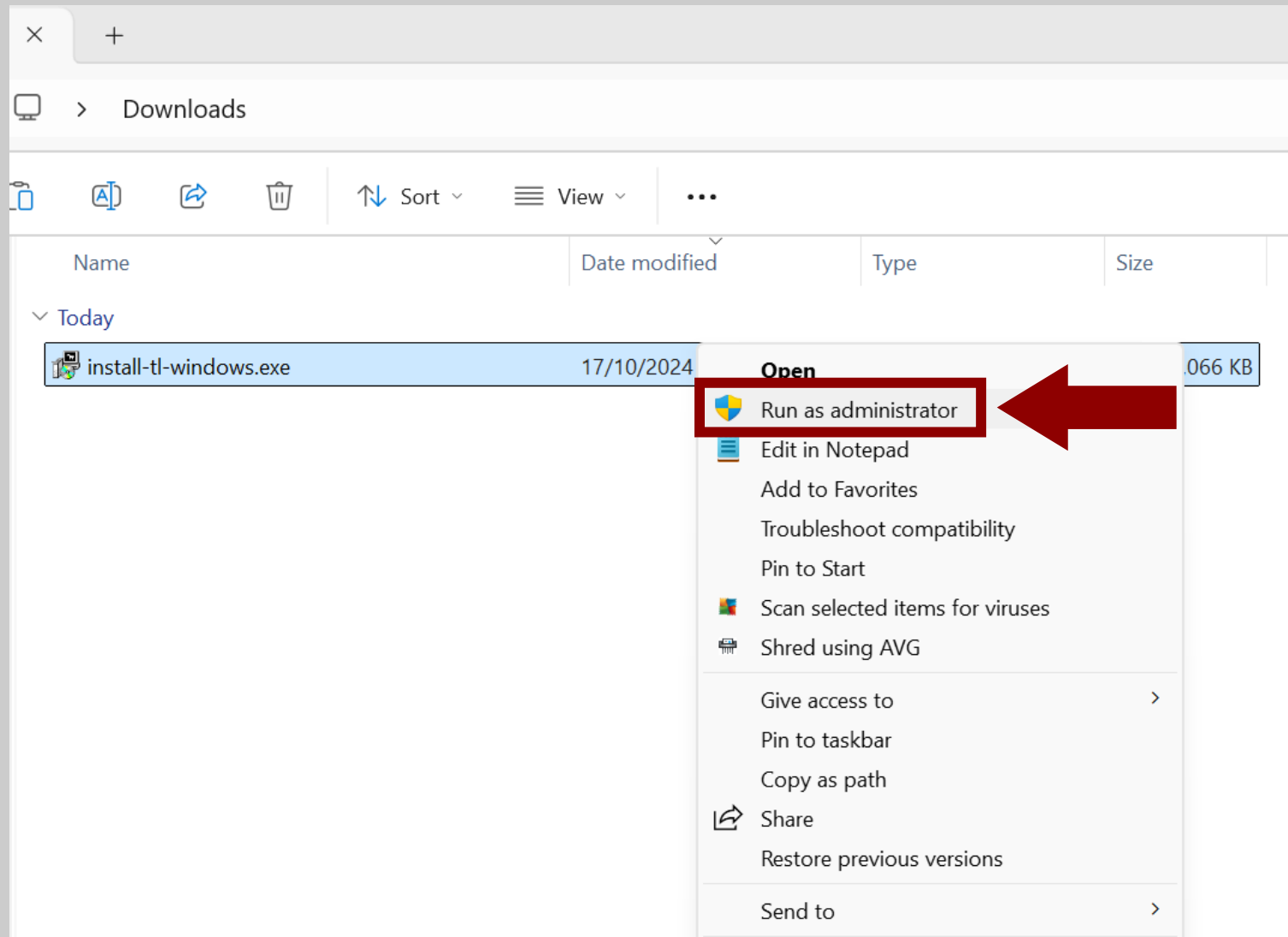
For regular installations via download, we highly recommend installing the LWP Perl bundle if you don't have it (check for a file named `LWP/UserAgent.pm`). Any reasonable version of LWP available either from your operating system distribution or from [CPAN](#) should be fine for TL. Having it will greatly speed the downloads, compared to using the fallback `curl` or `wget` programs. On Windows, the TL-provided Perl already includes it, so usually nothing extra need be done.

If you need to download through proxies, use a `~/wgetrc` file or environment variables with the [proxy settings for wget](#), or the equivalent for other download methods.

With this network-based installation method, what gets installed is the currently available versions of packages and programs. This is in contrast with the [other installation methods](#), which are kept stable between public releases. [Continuing package updates](#) can be done with `tlmgr`.

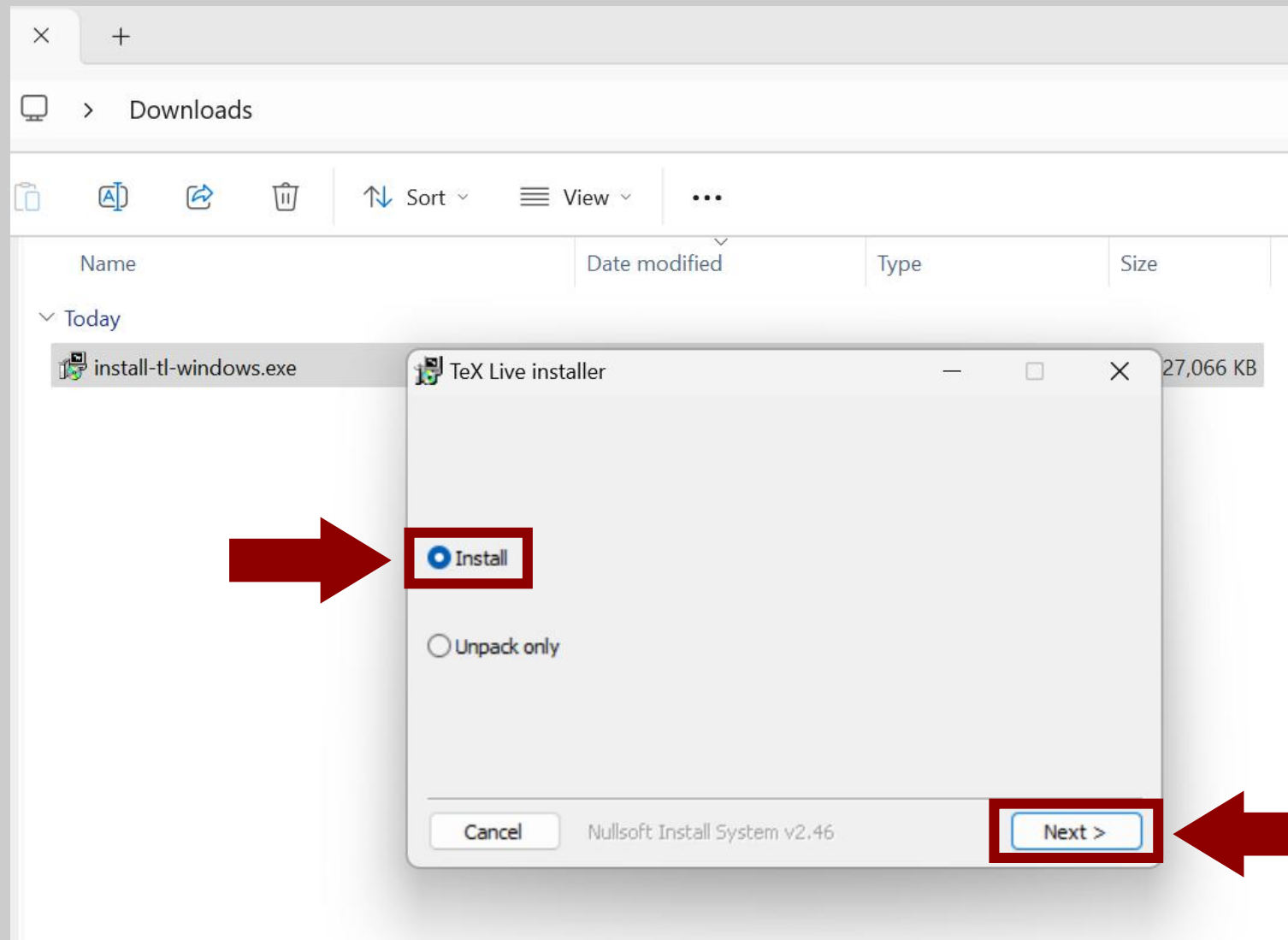
תחילת ההתקנה דרך הרשת

לאחר ההורדה, נלחץ לחיצה ימנית על הקובץ, ונריץ אותו כאדמין:



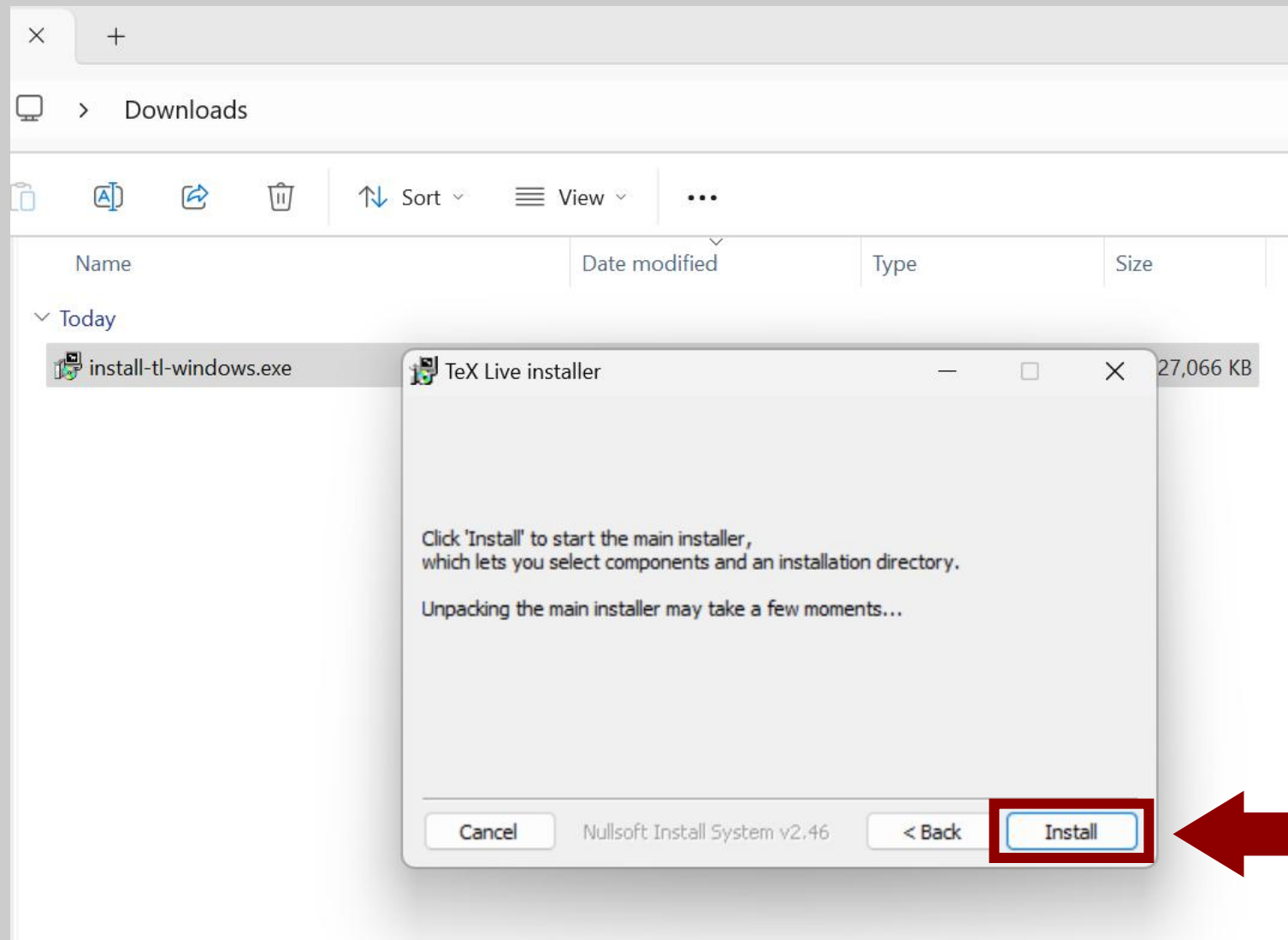
תחילת ההתקנה דרך הרשת

בחלון שייפתח נשאר את הבחירה על "Install" ונלחץ על "Next".



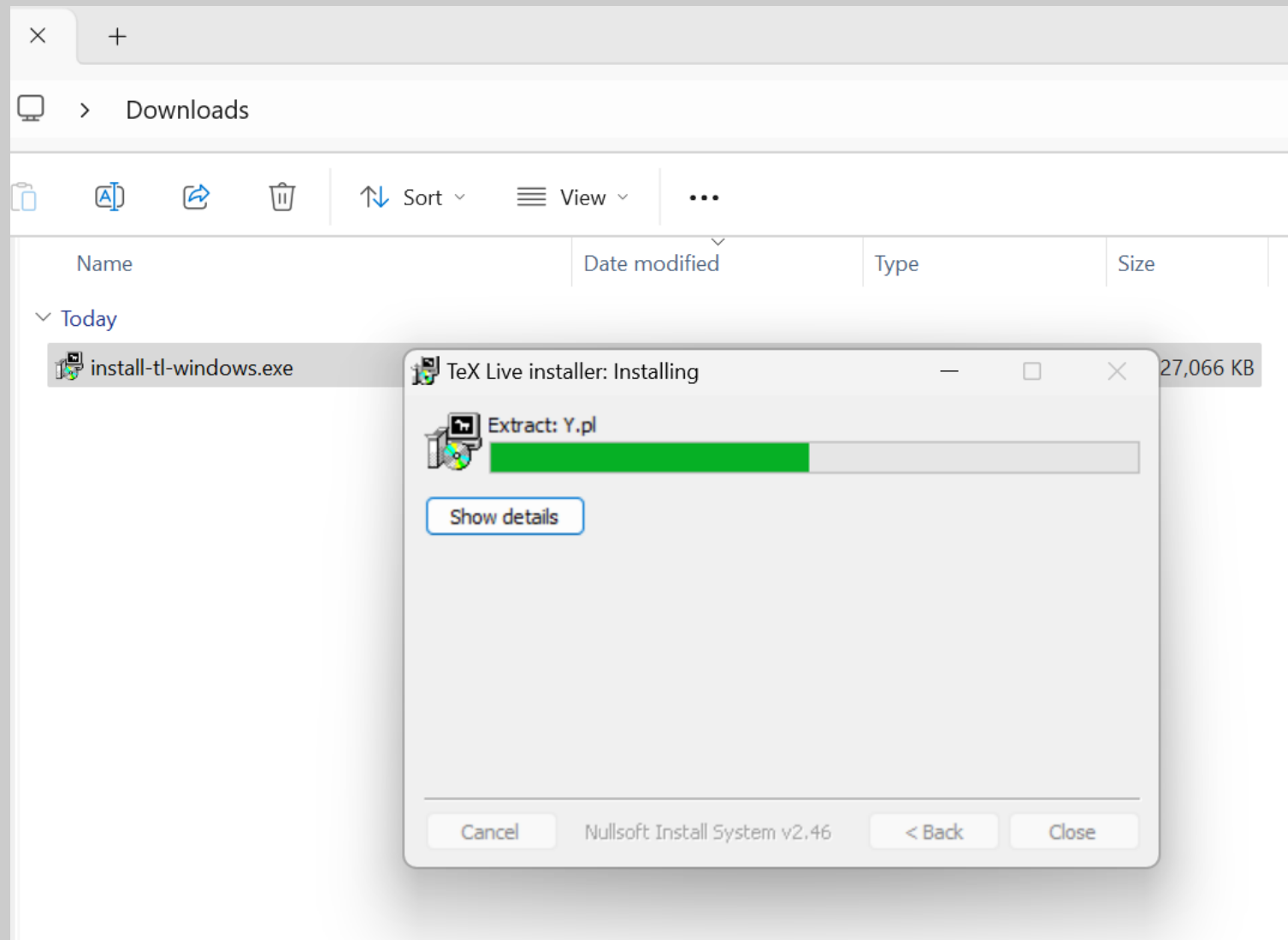
תחילת ההתקנה דרך הרשת

נלחץ על "Install" ...



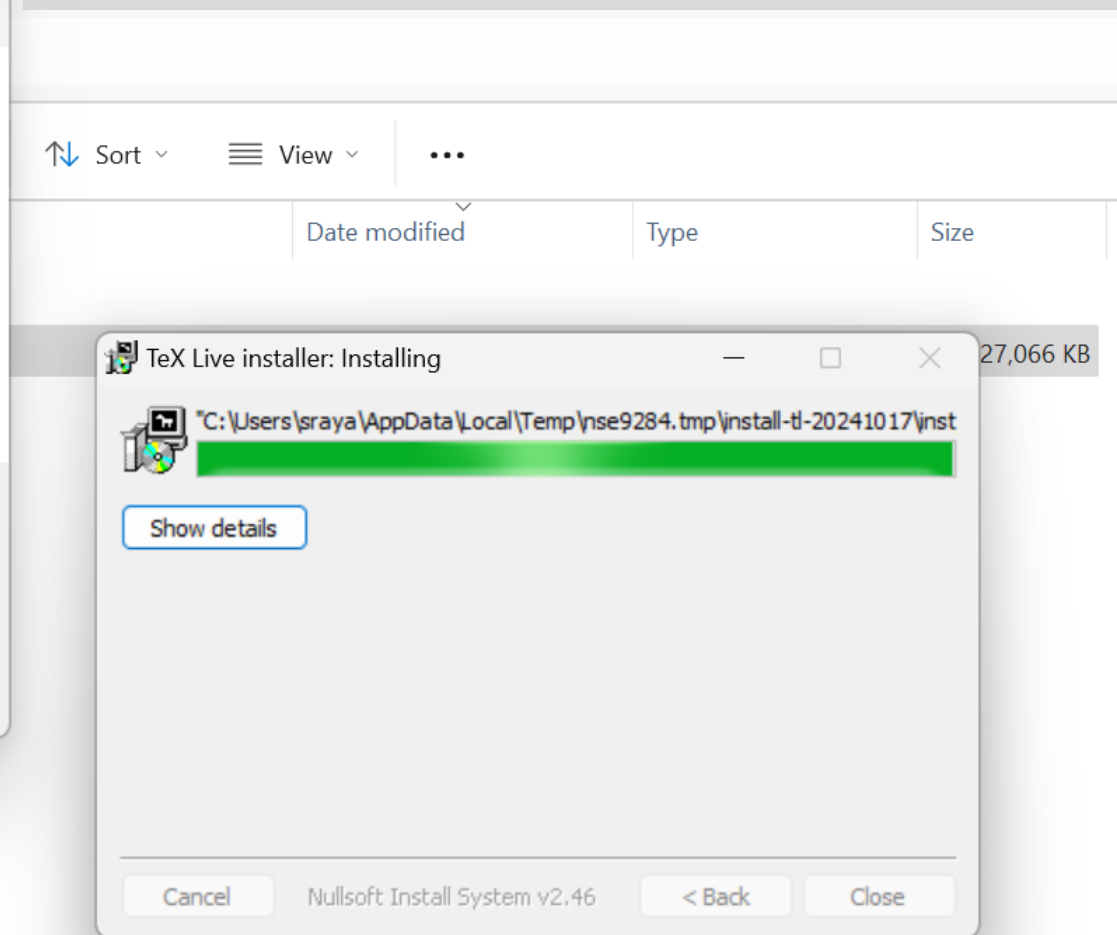
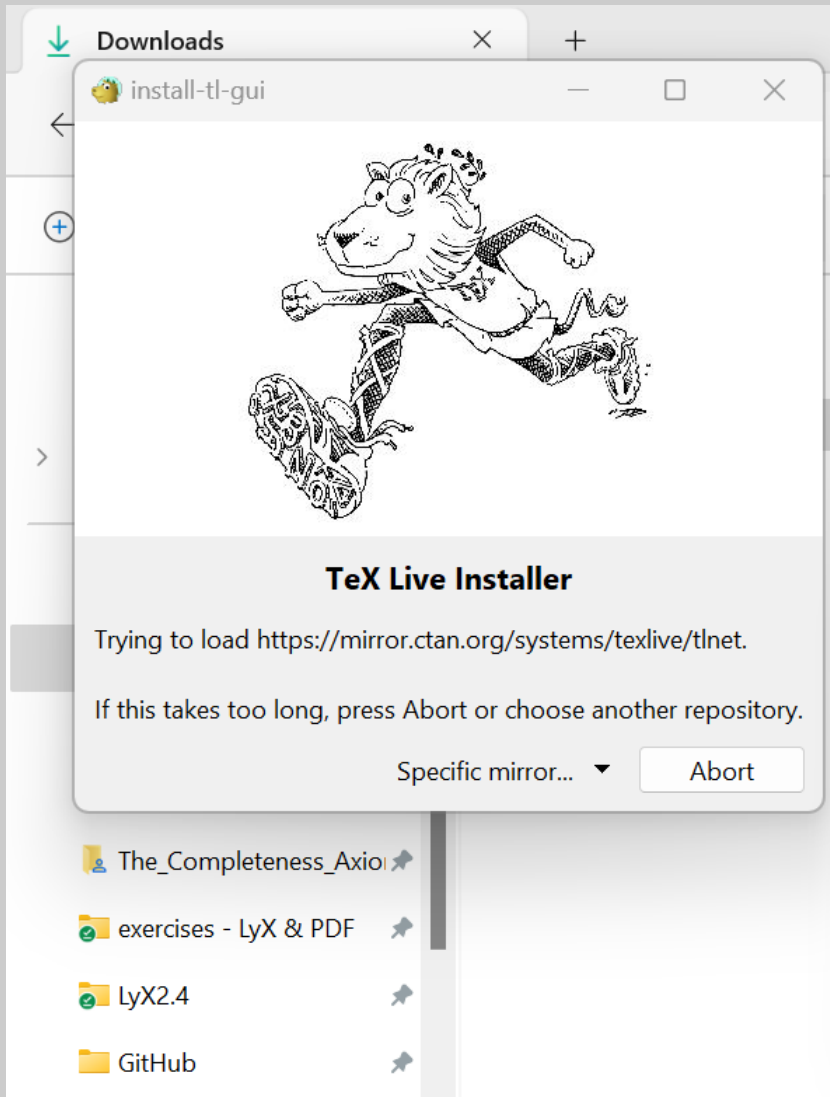
תחילת ההתקנה דרך הרשת

... ומיד תתחיל ההתקנה.



תחילת ההתקנה דרך הרשת

אם מופיע חלון נוסף כבצילום המסך, יש לחכות עד שיופיע חלון דומה לזה שבשקופית #16.



תחילת ההתקנה ממאגר מקומי

אם המאגר המקומי נמצא בהחסן נייד (disk-on-key), ובנוסף ההחסן הנייד והמחשב תומכים בתקן [USB 3](#), כדאי לוודא שההחסן הנייד מחובר ליציאה התומכת בה גם היא.

כדי לבדוק זאת ניכנס להגדרות -> בלוטות' ומכשירים -> מכשירים

The screenshot shows the Windows Settings application. On the left, the 'Bluetooth & devices' category is selected in the navigation pane, highlighted with a red box and a red arrow pointing to it. The main content area is titled 'Bluetooth & devices'. At the top, there is an 'Add device' button with a plus sign. Below it is a 'View more devices' button. The 'Bluetooth' section is currently turned off, with a toggle switch set to 'Off'. At the bottom, the 'Devices' section is highlighted with a red box and a red arrow pointing to it. This section includes a description: 'Mouse, keyboard, pen, audio, displays and docks, other devices' and an 'Add device' button.

תחילת ההתקנה ממאגר מקומי

אם ליד ההחסן הנייד מופיעה ההודעה שבצילום המסך, נדע שהמחשב וההחסן הנייד תומכים ב-USB 3, אבל ההחסן אינו בחיבור תואם.

The screenshot shows the Windows Settings application. The left sidebar is open to 'Bluetooth & devices'. The main pane is titled 'Bluetooth & devices > Devices'. At the top, there is a 'Bluetooth' section with a toggle switch set to 'Off'. Below that is an 'Add device' button. The 'Input' section shows an 'HP 100 105 USB Optical Mouse'. The 'Other devices' section contains three items: 'Sagemcom F@ST 5670' (Not connected), 'SanDisk 3.2Gen1' (highlighted with a red box), and another device. The SanDisk device has a green dot and a message: 'Device can perform faster when connected to USB 3.0'. The 'Device settings' section is partially visible at the bottom.

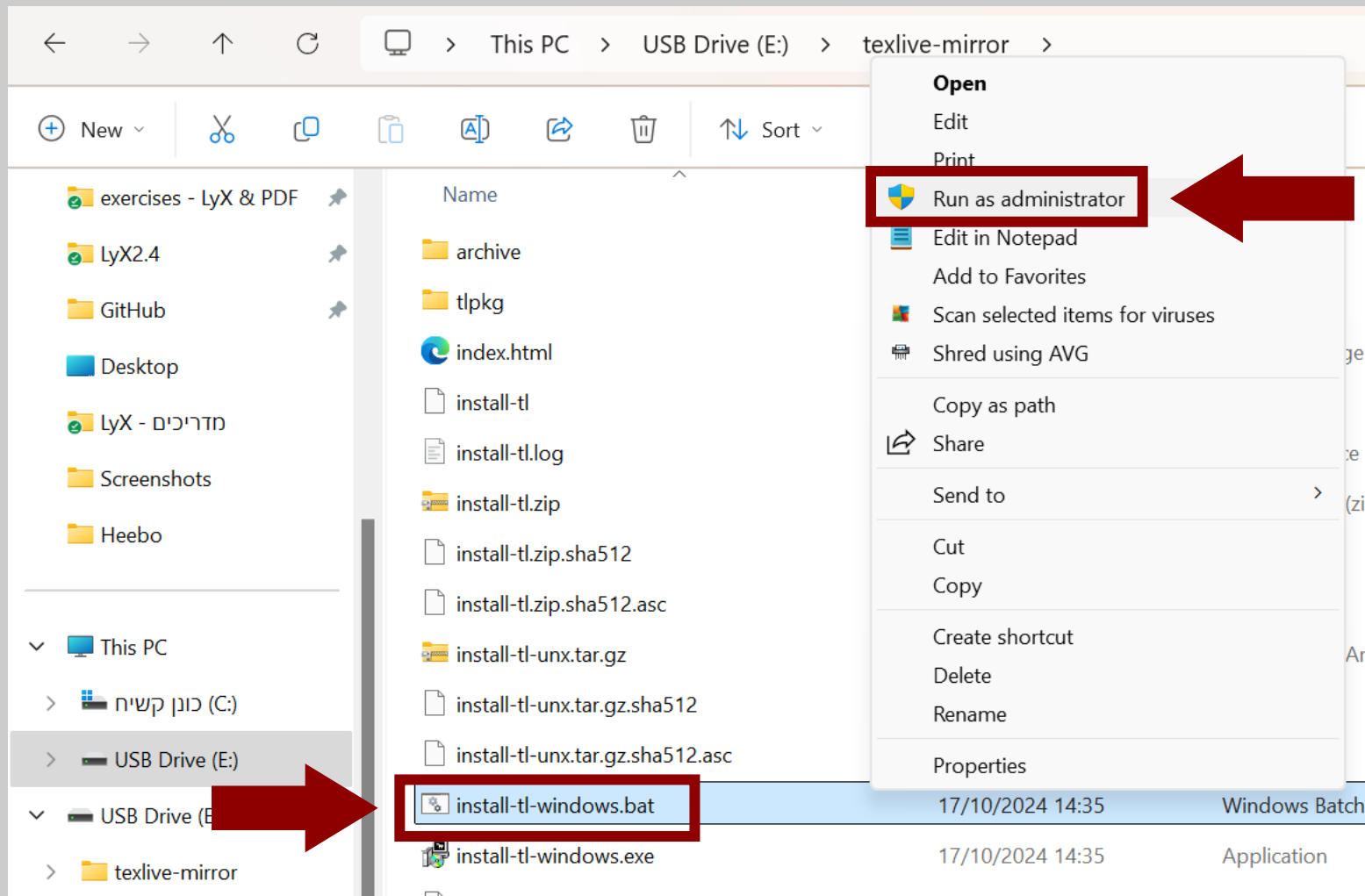
תחילת ההתקנה ממאגר מקומי

נוציא את ההחסן הנייד מהחיבור הנוכחי ונכניס אותו לחיבור אחר, כך שיתקבל המסך הבא:

The screenshot shows the Windows Settings application. The left sidebar contains the following settings categories: Home, System, Bluetooth & devices (selected), Network & internet, Personalization, Apps, Accounts, Time & language, Gaming, Accessibility, Privacy & security, and Windows Update. The main content area is titled 'Bluetooth & devices > Devices'. At the top, there is a 'Bluetooth' section with a toggle switch set to 'Off'. Below this is an 'Add device' button. The 'Input' section lists an 'HP 100 105 USB Optical Mouse'. The 'Other devices' section lists two devices: 'Sagemcom F@ST 5670' (Not connected) and 'SanDisk 3.2Gen1' (Connected to USB 3.0). The SanDisk device is highlighted with a red rectangular box. At the bottom, there is a 'Device settings' section.

תחילת ההתקנה ממאגר מקומי

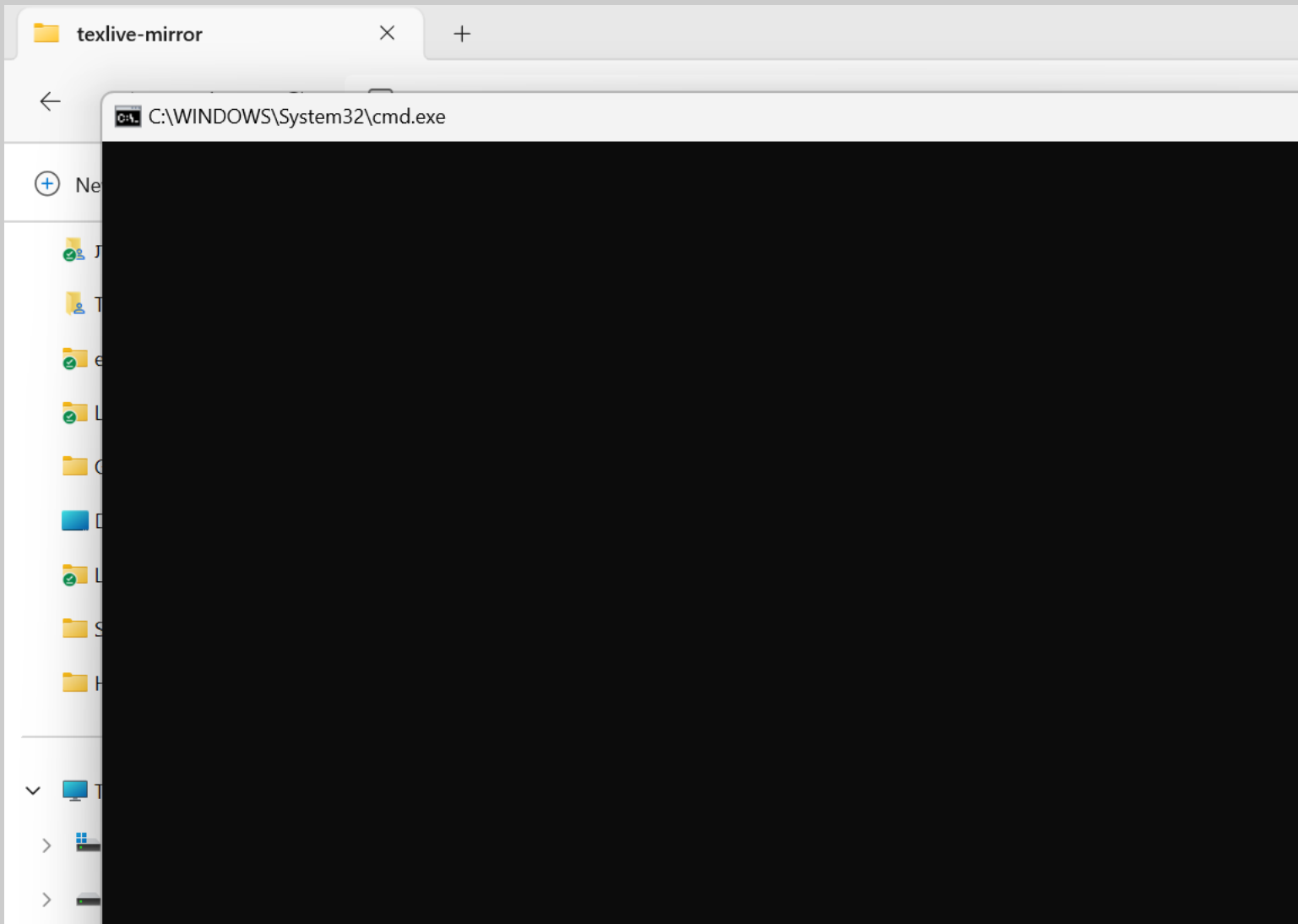
כעת, נפתח את התיקייה שבה נמצא המאגר המקומי, נלחץ לחיצה ימנית על הקובץ "install-tl-windows.bat", ונריץ אותו כאדמין (ראו צילום מסך).



שימו לב!!!: יש להריץ את הקובץ בעל הסיומת ".bat", ולא את הקובץ בעל הסיומת ".exe"; הרצת קובץ ה-exe תמנע מתהליך ההתקנה לדעת על קיום המאגר המקומי.

תחילת ההתקנה ממאגר מקומי

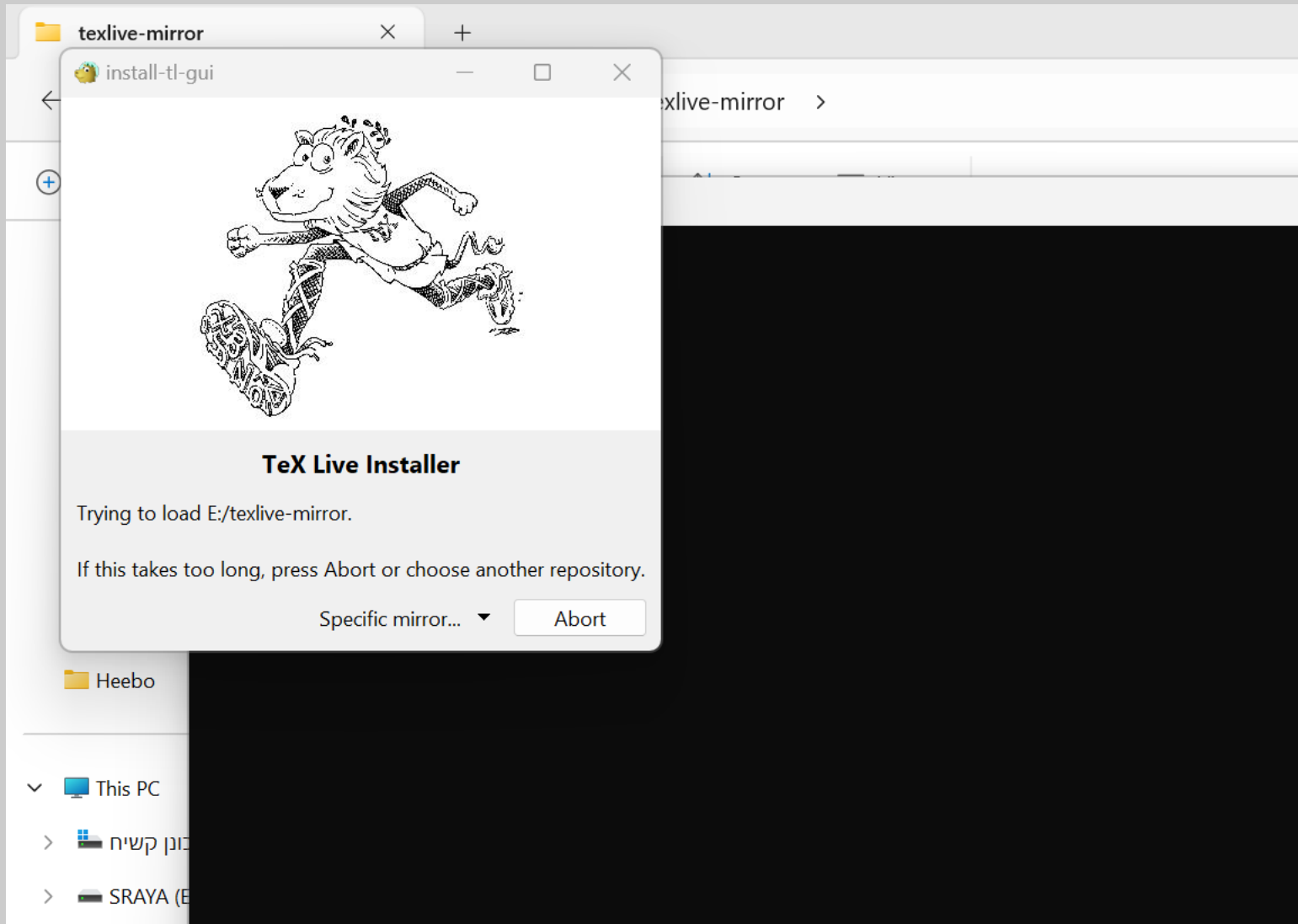
מיד ייפתח חלון שחור של שורת הפקודה.



**שימו לב!!!: סגירת החלון
השחור תוביל לעצירת
ההתקנה, לכן אין לסגור
את החלון עד לסיום
ההתקנה.**

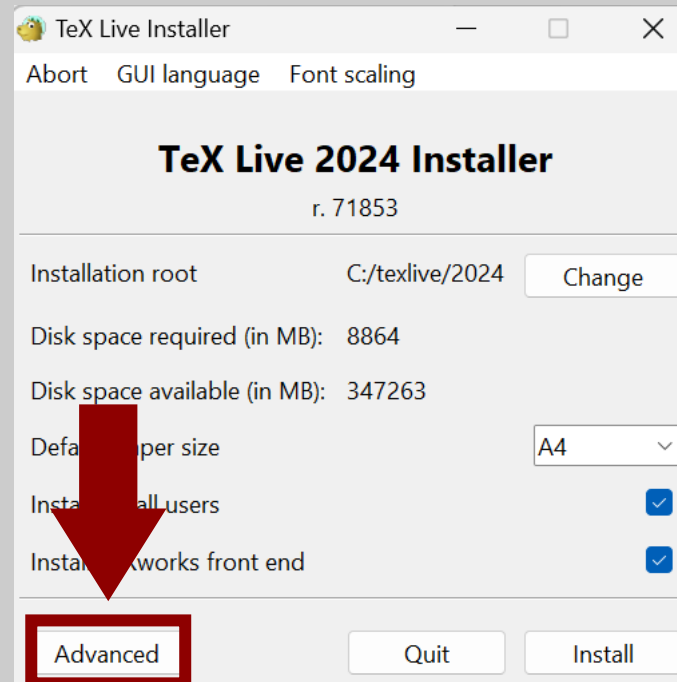
תחילת ההתקנה ממאגר מקומי

אם מופיע חלון נוסף כבצילום המסך, יש לחכות עד שיופיע חלון דומה לזה שבשקופית הבאה.



המשך התקנה כללי

נלחץ על "Advanced".



המשך התקנה כללי

TeX Live Installer

Abort GUI language Font scaling

TeX Live 2024 Installer

r. 71853

Directories

TEXDIR: C:/texlive/2024

Installation root

TEXMFLOCAL: C:/texlive/texmf-local

Local additions

TEXMFHOME: ~/texmf

Per-user additions

Portable setup: No

May reset TEXMFLOCAL and TEXMFHOME

Options

Default paper size: A4

Allow execution of restricted list of programs via \write18

Create all format files

Install font/macro doc tree

Install font/macro source tree

Adjust searchpath

Desktop integration: TeX Live menu

File associations: Only new

Install for all users

Install TeXworks front end

After install, set CTAN as source for package updates

Selections

Scheme: full scheme (everything)

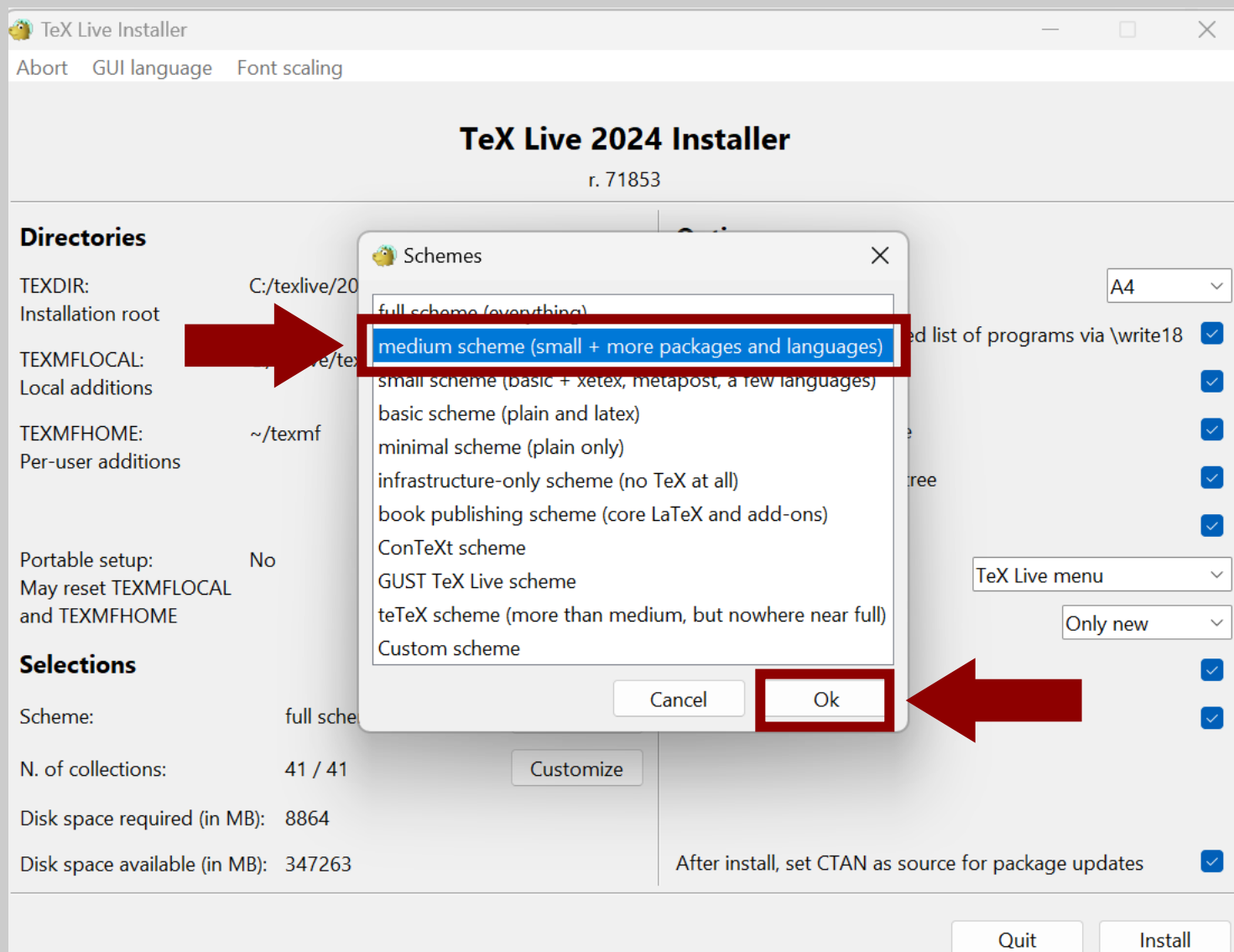
N. of collections: 41 / 41

Disk space required (in MB): 8864

Disk space available (in MB): 347263

נלחץ על "Change".

המשך התקנה כללי



נבחר ב-"medium scheme", ונאשר.

המשך התקנה כללי

TeX Live Installer

Abort GUI language Font scaling

TeX Live 2024 Installer

r. 71853

Directories

TEXDIR: Installation root	C:/texlive/2024	Change
TEXMFLOCAL: Local additions	C:/texlive/texmf-local	Change
TEXMFHOME: Per-user additions	~/texmf	Change
		More ...
Portable setup: May reset TEXMFLOCAL and TEXMFHOME	No	Toggle

Selections

Scheme:	medium scheme (small + more packages and languages)	Change
N. of collections:	23 / 41	Customize
Disk space required (in MB):	2505	
Disk space available (in MB):	347245	

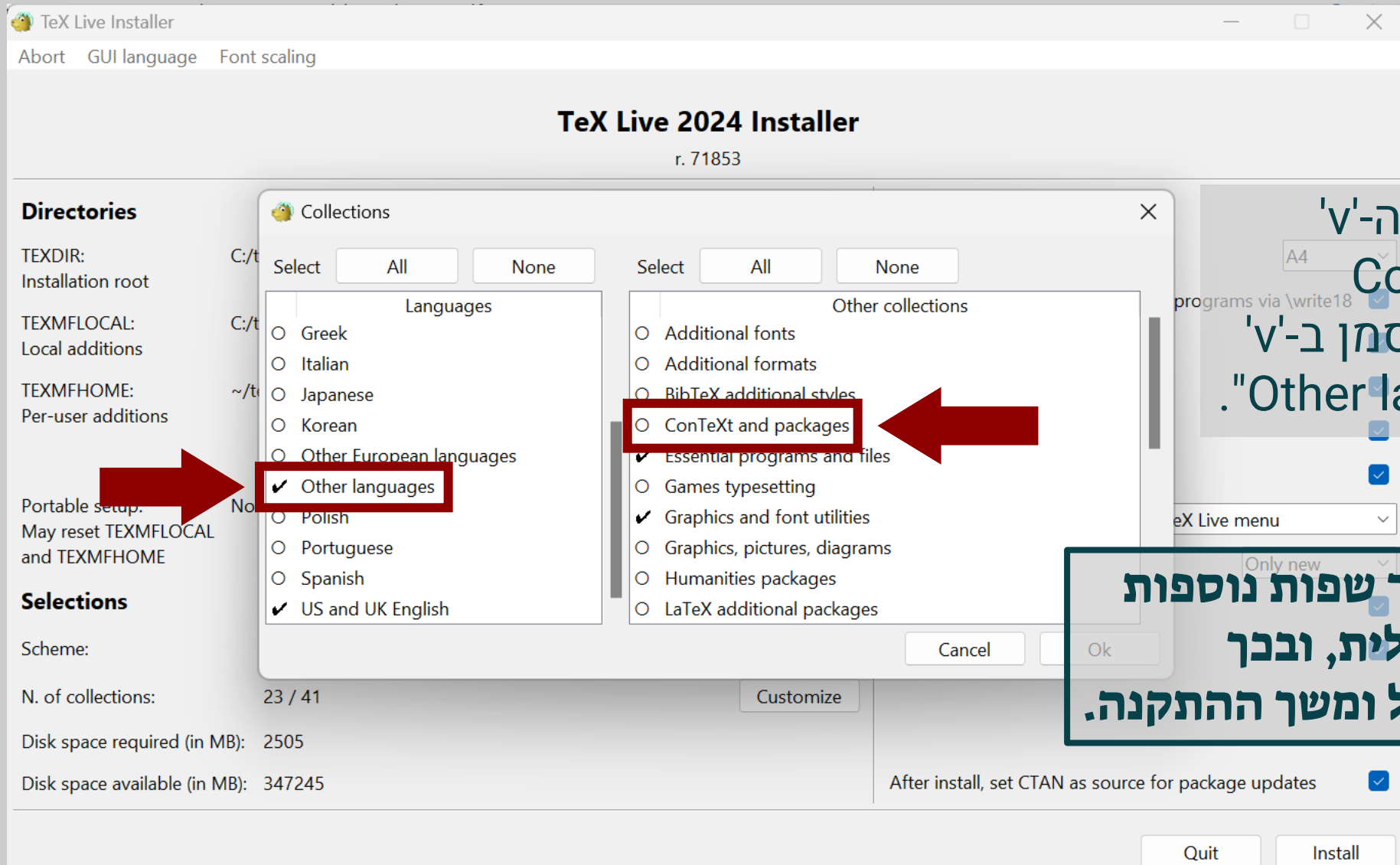
Options

Default paper size	A4
Allow execution of restricted list of programs via \write18	<input checked="" type="checkbox"/>
Create all format files	<input checked="" type="checkbox"/>
Install font/macro doc tree	<input checked="" type="checkbox"/>
Install font/macro source tree	<input checked="" type="checkbox"/>
Adjust searchpath	<input checked="" type="checkbox"/>
Desktop integration	TeX Live menu
File associations	Only new
Install for all users	<input checked="" type="checkbox"/>
Install TeXworks front end	<input checked="" type="checkbox"/>
After install, set CTAN as source for package updates	<input checked="" type="checkbox"/>

Quit Install

נלחץ על
"Customize"

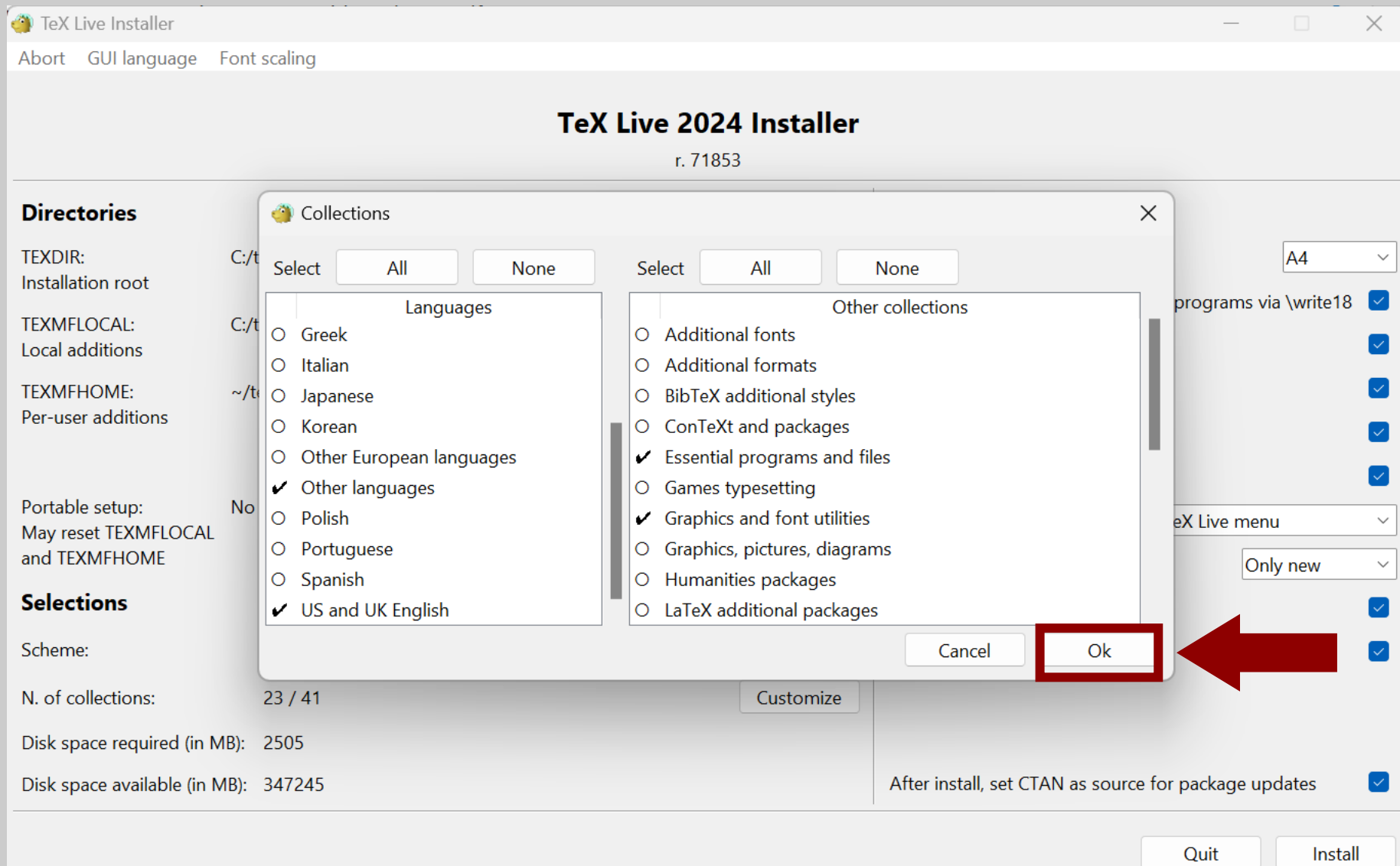
המשך התקנה כללי



נסיר את סימון ה-'v'
מ-ConTeXt and
"packages", ונסמן ב-'v'
את "Other languages".

טיפ: ניתן להסיר שפות נוספות
בעמודה השמאלית, ובכך
להקטין את גודל ומשך ההתקנה.

המשך התקנה כללי



נאשר את
הבחירה...

המשך התקנה כללי

TeX Live Installer

Abort GUI language Font scaling

TeX Live 2024 Installer

r. 71853

Directories		Options	
TEXDIR: Installation root	C:/texlive/2024	Change	Default paper size A4
TEXMFLOCAL: Local additions	C:/texlive/texmf-local	Change	Allow execution of restricted list of programs via \write18 <input checked="" type="checkbox"/>
TEXMFHOME: Per-user additions	~/texmf	Change	Create all format files <input checked="" type="checkbox"/>
		More ...	Install font/macro doc tree <input checked="" type="checkbox"/>
Portable setup: May reset TEXMFLOCAL and TEXMFHOME	No	Toggle	Install font/macro source tree <input checked="" type="checkbox"/>
			Adjust searchpath <input checked="" type="checkbox"/>
			Desktop integration TeX Live menu
			File associations Only new
			Install for all users <input checked="" type="checkbox"/>
			Install TeXworks front end <input checked="" type="checkbox"/>
			After install, set CTAN as source for package updates <input checked="" type="checkbox"/>

Selections

Scheme:	Custom scheme	Change
N. of collections:	15 / 41	Customize
Disk space required (in MB):	2071	
Disk space available (in MB):	347243	

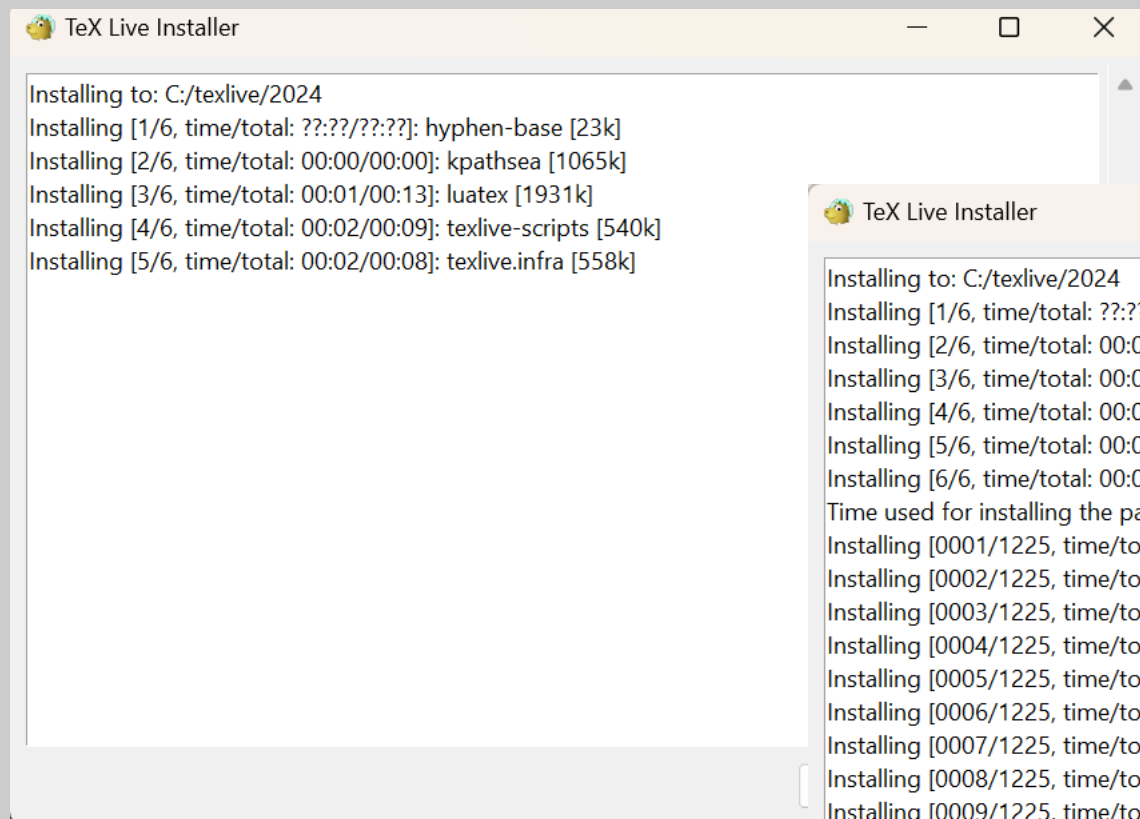
Quit Install

...ונלחץ על "Install".

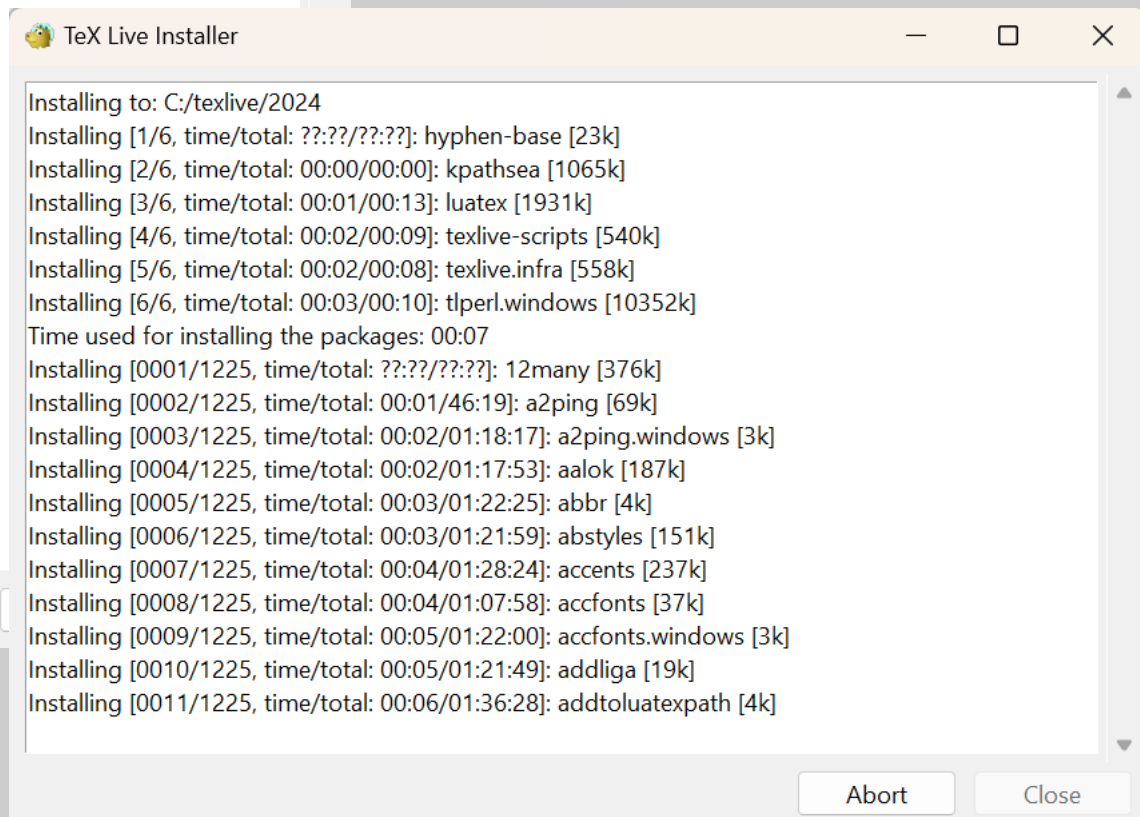


המשך התקנה כללי

מיד ייפתח חלון שבו נראה את תהליך ההורדה, צילומי מסך:



```
TeX Live Installer
Installing to: C:/texlive/2024
Installing [1/6, time/total: ???/???]: hyphen-base [23k]
Installing [2/6, time/total: 00:00/00:00]: kpathsea [1065k]
Installing [3/6, time/total: 00:01/00:13]: luatex [1931k]
Installing [4/6, time/total: 00:02/00:09]: texlive-scripts [540k]
Installing [5/6, time/total: 00:02/00:08]: texlive.infra [558k]
```

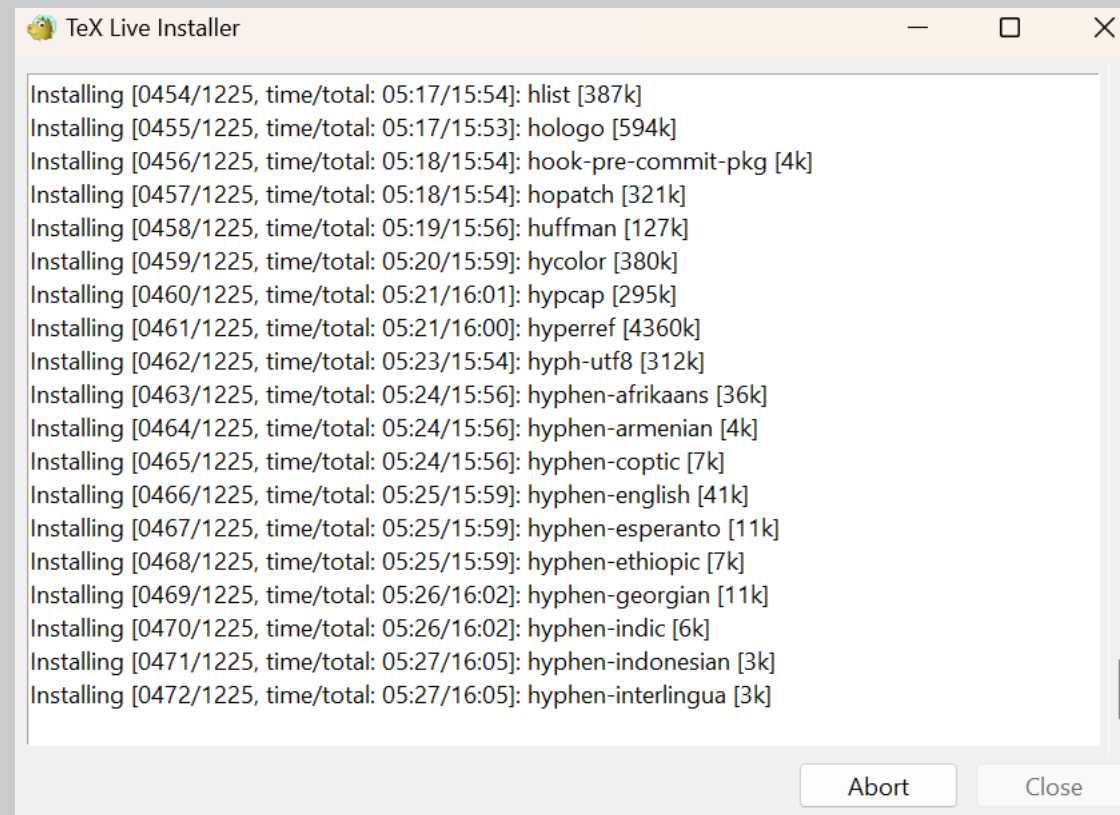


```
TeX Live Installer
Installing to: C:/texlive/2024
Installing [1/6, time/total: ???/???]: hyphen-base [23k]
Installing [2/6, time/total: 00:00/00:00]: kpathsea [1065k]
Installing [3/6, time/total: 00:01/00:13]: luatex [1931k]
Installing [4/6, time/total: 00:02/00:09]: texlive-scripts [540k]
Installing [5/6, time/total: 00:02/00:08]: texlive.infra [558k]
Installing [6/6, time/total: 00:03/00:10]: tlpertl.windows [10352k]
Time used for installing the packages: 00:07
Installing [0001/1225, time/total: ???/???]: 12many [376k]
Installing [0002/1225, time/total: 00:01/46:19]: a2ping [69k]
Installing [0003/1225, time/total: 00:02/01:18:17]: a2ping.windows [3k]
Installing [0004/1225, time/total: 00:02/01:17:53]: aalok [187k]
Installing [0005/1225, time/total: 00:03/01:22:25]: abbr [4k]
Installing [0006/1225, time/total: 00:03/01:21:59]: abstyles [151k]
Installing [0007/1225, time/total: 00:04/01:28:24]: accents [237k]
Installing [0008/1225, time/total: 00:04/01:07:58]: accfonts [37k]
Installing [0009/1225, time/total: 00:05/01:22:00]: accfonts.windows [3k]
Installing [0010/1225, time/total: 00:05/01:21:49]: addliga [19k]
Installing [0011/1225, time/total: 00:06/01:36:28]: addtoluatexpath [4k]
```

Abort Close

המשך התקנה כללי

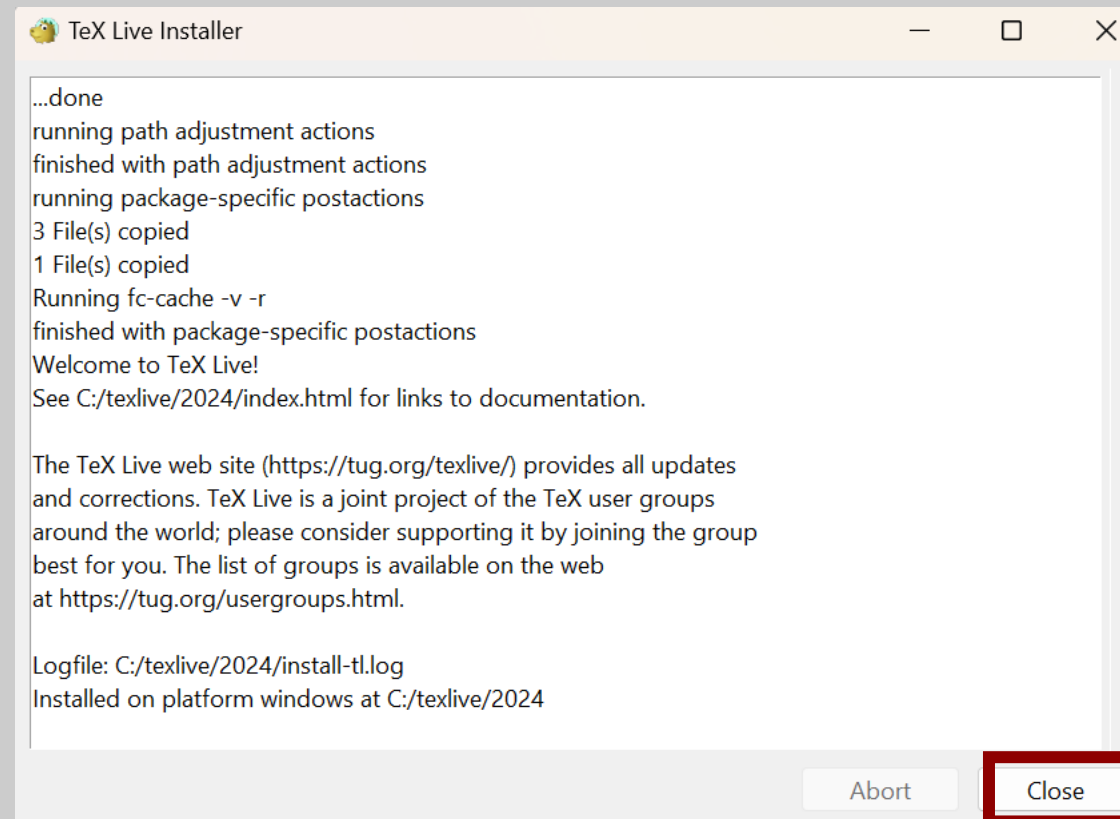
ההורדה מחולקת לשני שלבים: תחילה יורדים 6 קבצים בסיסיים, ולאחריהם יותר מאלף קבצים נוספים. ניתן לעקוב אחרי תהליך ההורדה באמצעות החלון הנ"ל: בכל שורה נכתב כמה קבצים ירדו מתוך סך הקבצים הכולל, כמה זמן כבר עבר וכמה זמן התוכנה מעריכה שיארך התהליך כולו.



```
TeX Live Installer
Installing [0454/1225, time/total: 05:17/15:54]: hlist [387k]
Installing [0455/1225, time/total: 05:17/15:53]: hologo [594k]
Installing [0456/1225, time/total: 05:18/15:54]: hook-pre-commit-pkg [4k]
Installing [0457/1225, time/total: 05:18/15:54]: hopatch [321k]
Installing [0458/1225, time/total: 05:19/15:56]: huffman [127k]
Installing [0459/1225, time/total: 05:20/15:59]: hycolor [380k]
Installing [0460/1225, time/total: 05:21/16:01]: hypcap [295k]
Installing [0461/1225, time/total: 05:21/16:00]: hyperref [4360k]
Installing [0462/1225, time/total: 05:23/15:54]: hyph-utf8 [312k]
Installing [0463/1225, time/total: 05:24/15:56]: hyphen-afrikaans [36k]
Installing [0464/1225, time/total: 05:24/15:56]: hyphen-armenian [4k]
Installing [0465/1225, time/total: 05:24/15:56]: hyphen-coptic [7k]
Installing [0466/1225, time/total: 05:25/15:59]: hyphen-english [41k]
Installing [0467/1225, time/total: 05:25/15:59]: hyphen-esperanto [11k]
Installing [0468/1225, time/total: 05:25/15:59]: hyphen-ethiopic [7k]
Installing [0469/1225, time/total: 05:26/16:02]: hyphen-georgian [11k]
Installing [0470/1225, time/total: 05:26/16:02]: hyphen-indic [6k]
Installing [0471/1225, time/total: 05:27/16:05]: hyphen-indonesian [3k]
Installing [0472/1225, time/total: 05:27/16:05]: hyphen-interlingua [3k]
Abort Close
```


המשך התקנה כללי

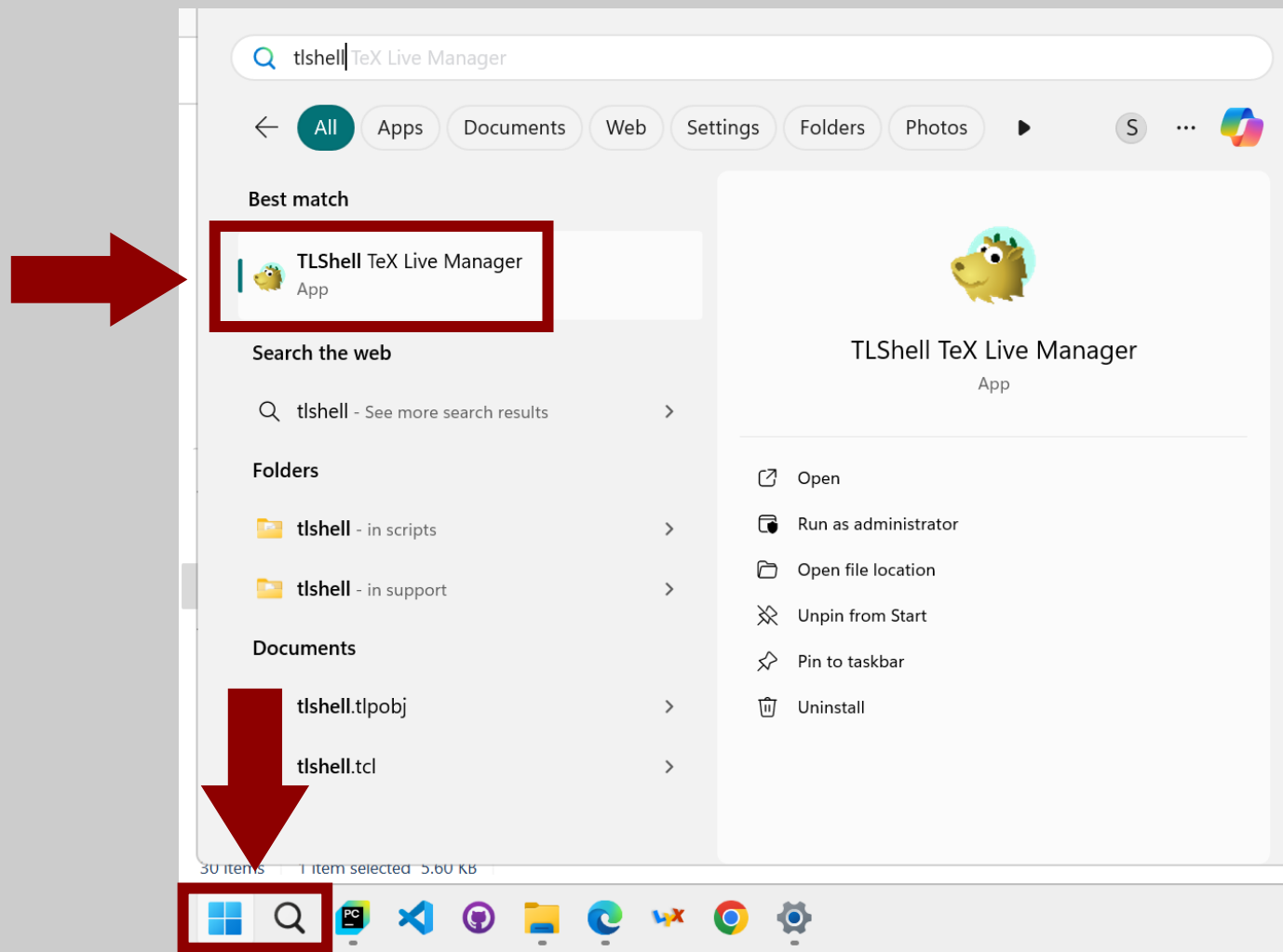
כשההורדה תסתיים ייראה החלון כבצילום המסך הבא:



נלחץ על "Close" ובזאת סיימנו את תהליך ההתקנה, אך זה לא הסוף: יש עוד כמה חבילות שנצטרך להוריד.

טעינת מאגר

בתפריט ההתחלה (או בשורת החיפוש) נחפש את היישום "TLShell TeX Live Manager", ונפעיל אותו.



טעינת מאגר

מיד ייפתח חלון, נחכה שייטען ויגיע למצב הבא:

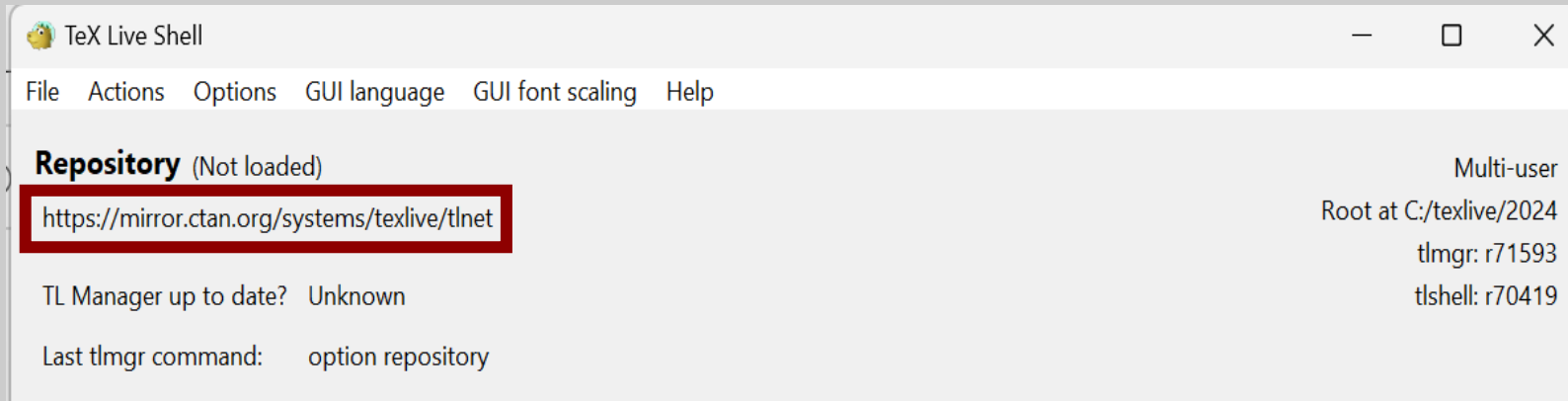
The screenshot shows the TeX Live Shell window. The menu bar includes File, Actions, Options, GUI language, GUI font scaling, and Help. The main area is divided into several sections:

- Repository (Not loaded):** A red box highlights this section, which contains the URL `https://mirror.ctan.org/systems/texlive/tlnet` and the status "TL Manager up to date? Unknown".
- Multi-user information:** Shows "Root at C:/texlive/2024", "tlmgr: r71593", and "tlshell: r70419".
- Last tlmgr command:** "option repository".
- PACKAGE LIST:** A section with filters for Status (Installed, Not installed, All, Updatable), Detail (Global, Collections and schemes, Only schemes), and Search (By name, By name and description). It includes buttons for "Install marked", "Update marked", "Remove marked", "Update tlmgr", and "Update all".
- Buttons:** "Mark all displayed" and "Mark none" are located below the filters.
- Table:** A table with columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description. A red box highlights the first few rows of the table.
- Bottom Bar:** Shows "Idle" and buttons for "Show logs", "Restart tlmgr", "Restart self", and "Quit".

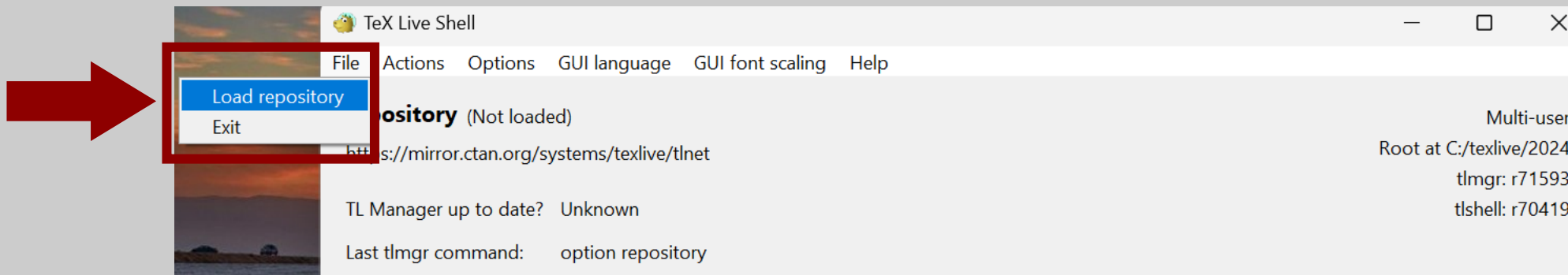
Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)		Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)		Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891		windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)		LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878		Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878		Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)		Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)		Utilities to derive new fonts from existing ones

טעינת מאגר

אם אנחנו מרוצים מהמאגר הנוכחי שלנו (מסומן בצילום שלמטה),



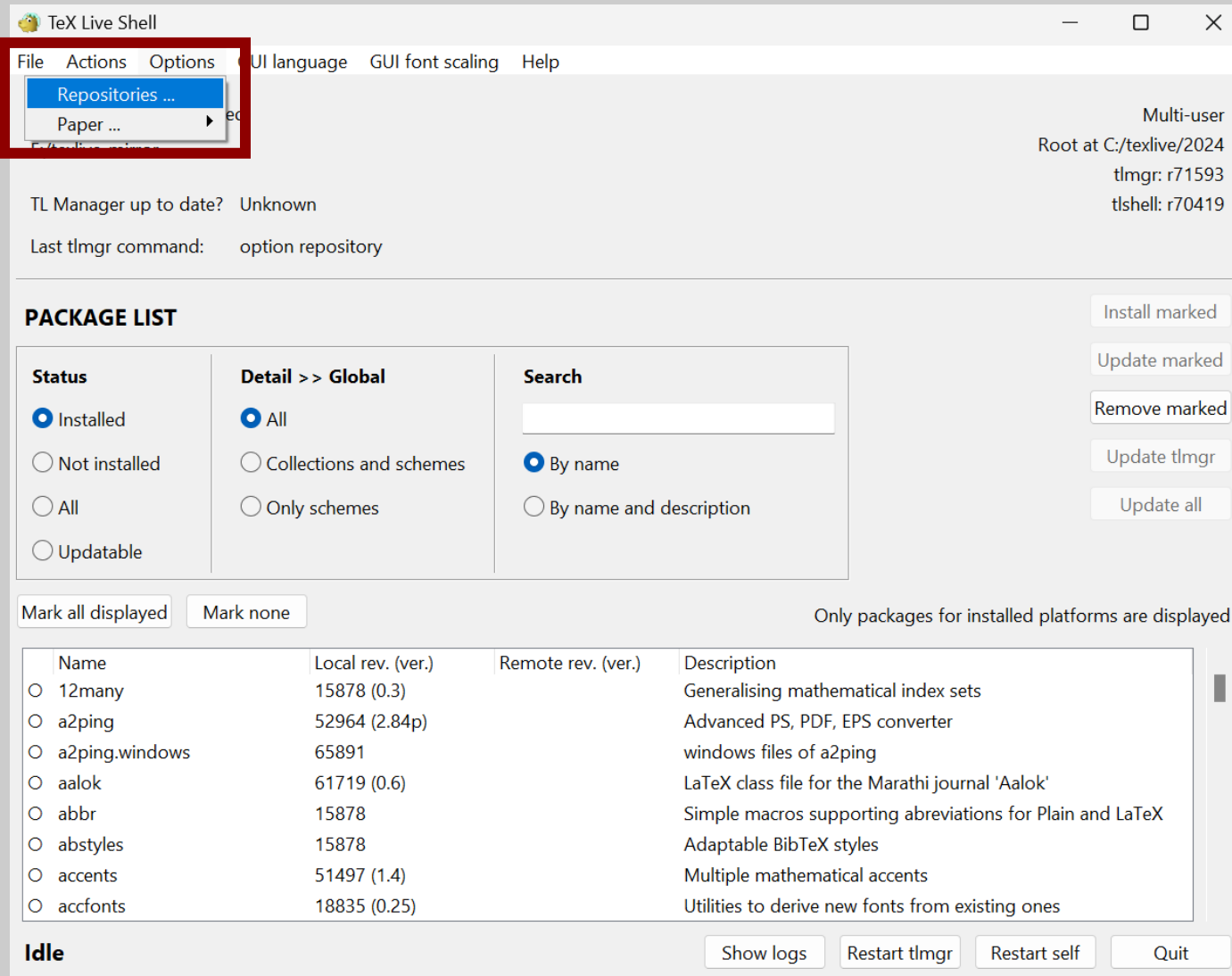
נלחץ על "File" <- "Load repository" ...



...ונעבור לשקופית [#30](#).

טעינת מאגר

אחרת, בתפריט שבחלק העליון נלחץ על "Options" <- "Repositories..."



The screenshot shows the TeX Live Shell application window. A red arrow points to the 'Repositories...' option in the 'Options' menu. The interface includes a menu bar with 'File', 'Actions', 'Options', 'UI language', 'GUI font scaling', and 'Help'. Below the menu, there are status indicators for 'TL Manager up to date?' (Unknown) and 'Last tlmgr command:' (option repository). The main area is titled 'PACKAGE LIST' and contains several filter buttons: 'Install marked', 'Update marked', 'Remove marked', 'Update tlmgr', and 'Update all'. There are also radio buttons for 'Status' (Installed, Not installed, All, Updatable) and 'Detail >> Global' (All, Collections and schemes, Only schemes). A search box is present with radio buttons for 'By name' and 'By name and description'. At the bottom, there are buttons for 'Mark all displayed', 'Mark none', and 'Only packages for installed platforms are displayed'. A table lists packages with columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description.

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)		Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)		Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891		windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)		LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878		Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878		Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)		Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)		Utilities to derive new fonts from existing ones

Idle

Show logs Restart tlmgr Restart self Quit

טעינת מאגר

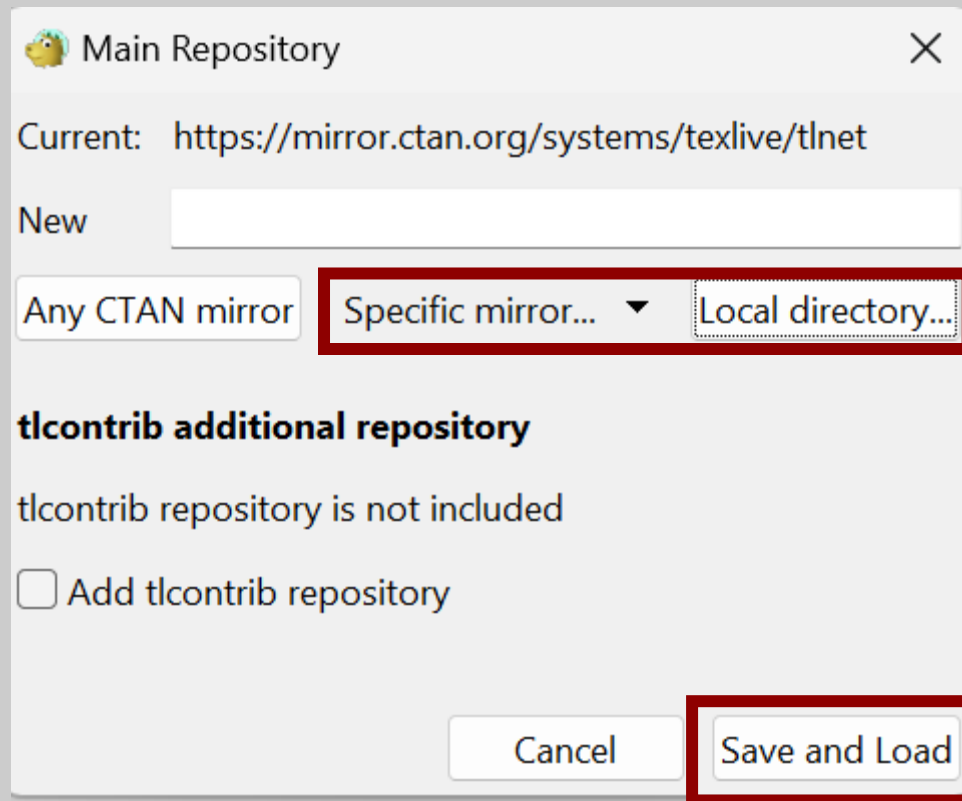
כעת ייפתח חלון נוסף שיבקש מאיתנו לבחור מאגר לטעינה:

The screenshot displays the TeX Live Shell interface. A 'Main Repository' dialog box is open, showing the current repository URL as `https://mirror.ctan.org/systems/texlive/tlnet`. The dialog includes a 'New' input field and three radio button options: 'Any CTAN mirror', 'Specific mirror...', and 'Local directory...'. Below these options, it states 'tlcontrib additional repository' and 'tlcontrib repository is not included', with an unchecked checkbox for 'Add tlcontrib repository'. The background interface shows the 'Repository' section with the URL `https://mirror.ctan.org/systems/texlive/tlnet` and 'Multi-user' status. The 'PACKAGE LIST' section is visible, with filters for 'Status' (Installed, Not installed, All, Updatable) and 'Detail >> Global' (All, Collections and, Only schemes). A table of packages is shown below, including '12many', 'a2ping', 'a2ping.windows', 'aalok', 'abbr', 'abstyles', 'accents', and 'accfonts'. At the bottom, there are buttons for 'Show logs', 'Restart tlmgr', 'Restart self', and 'Quit'.

Name	Local repository	Description
<input type="radio"/> 12many	15878 (0.3)	Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)	Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891	windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)	LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878	Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878	Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)	Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)	Utilities to derive new fonts from existing ones

טעינת מאגר

נבחר את המאגר הרצוי מהרשימה שתחת "Specific mirror", או נבחר מאגר מקומי (אם קיים כזה) ע"י לחיצה על "Local directory".



Main Repository

Current: <https://mirror.ctan.org/systems/texlive/tlnet>

New

Any CTAN mirror Specific mirror... Local directory...

tlcontrib additional repository

tlcontrib repository is not included

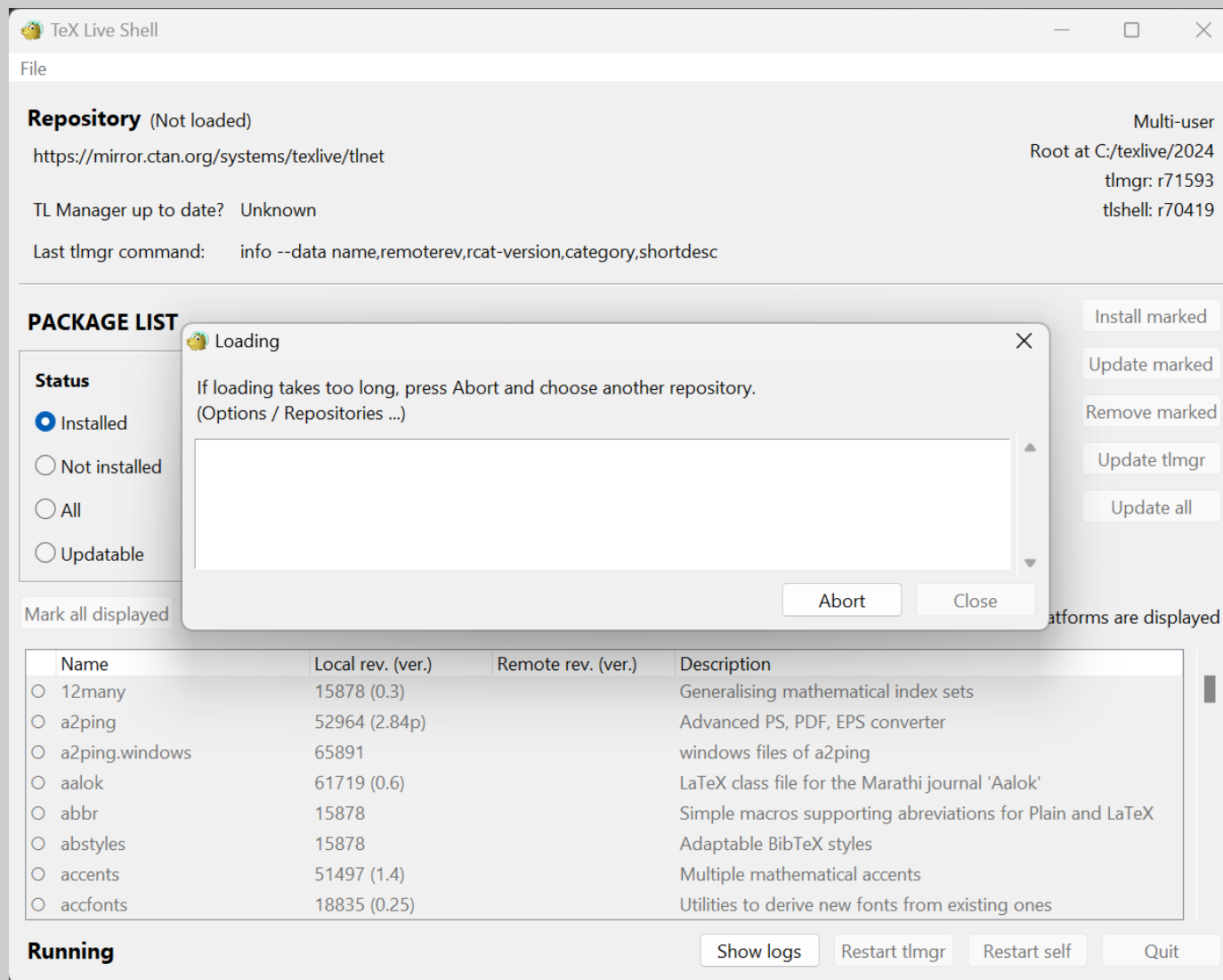
Add tlcontrib repository

Cancel Save and Load

לאחר שסיימנו נלחץ על "Save and Load".

טעינת מאגר

כעת ייפתח חלון שיספר לנו מה עלה בגורל הטעינה, זהו השלב הראשון:



The screenshot shows the TeX Live Shell interface. A 'Loading' dialog box is open, displaying the message: "If loading takes too long, press Abort and choose another repository. (Options / Repositories ...)". The dialog has 'Abort' and 'Close' buttons.

The background interface shows the 'PACKAGE LIST' section with a table of packages. The table has columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description. The packages listed are:

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)		Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)		Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891		windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)		LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878		Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878		Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)		Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)		Utilities to derive new fonts from existing ones

At the bottom of the interface, there are buttons for 'Show logs', 'Restart tlmgr', 'Restart self', and 'Quit'.

טעינת מאגר

זהו השלב השני:

The screenshot shows the TeX Live Shell interface. At the top, there's a title bar "TeX Live Shell" with standard window controls. Below it is a "File" menu. The main area is divided into sections: "Repository (Not loaded)" with details like "https://mirror.ctan.org/systems/texlive/tlnet", "Multi-user", "Root at C:/texlive/2024", "tlmgr: r71593", "tlshell: r70419", and "TL Manager up to date? Unknown". Below this is the "PACKAGE LIST" section, which is currently obscured by a "Loading" dialog box. The dialog box contains the text "If loading takes too long, press Abort and choose another repository. (Options / Repositories ...)" and a text area with "start load https://mirror.ctan.org/systems/texlive/tlnet". To the right of the dialog are buttons for "Install marked", "Update marked", "Remove marked", "Update tlmgr", and "Update all". Below the dialog is a table of packages with columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description. At the bottom, there's a "Running" section with buttons for "Show logs", "Restart tlmgr", "Restart self", and "Quit".

Repository (Not loaded) Multi-user
Root at C:/texlive/2024
tlmgr: r71593
tlshell: r70419
TL Manager up to date? Unknown
Last tlmgr command: info --data name,remoterev,rcat-version,category,shortdesc

PACKAGE LIST

Status

Installed
 Not installed
 All
 Updatable

Mark all displayed

atfoms are displayed

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)		Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)		Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891		windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)		LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878		Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878		Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)		Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)		Utilities to derive new fonts from existing ones

Running

Show logs Restart tlmgr Restart self Quit

טעינת מאגר

ונך נראה השלב השלישי והאחרון:

The screenshot shows the TeX Live Shell interface. A 'Loading' dialog box is open in the center, displaying the following text:

```
start load https://mirror.ctan.org/systems/texlive/tlnet
finish load https://mirror.ctan.org/systems/texlive/tlnet
Done loading
```

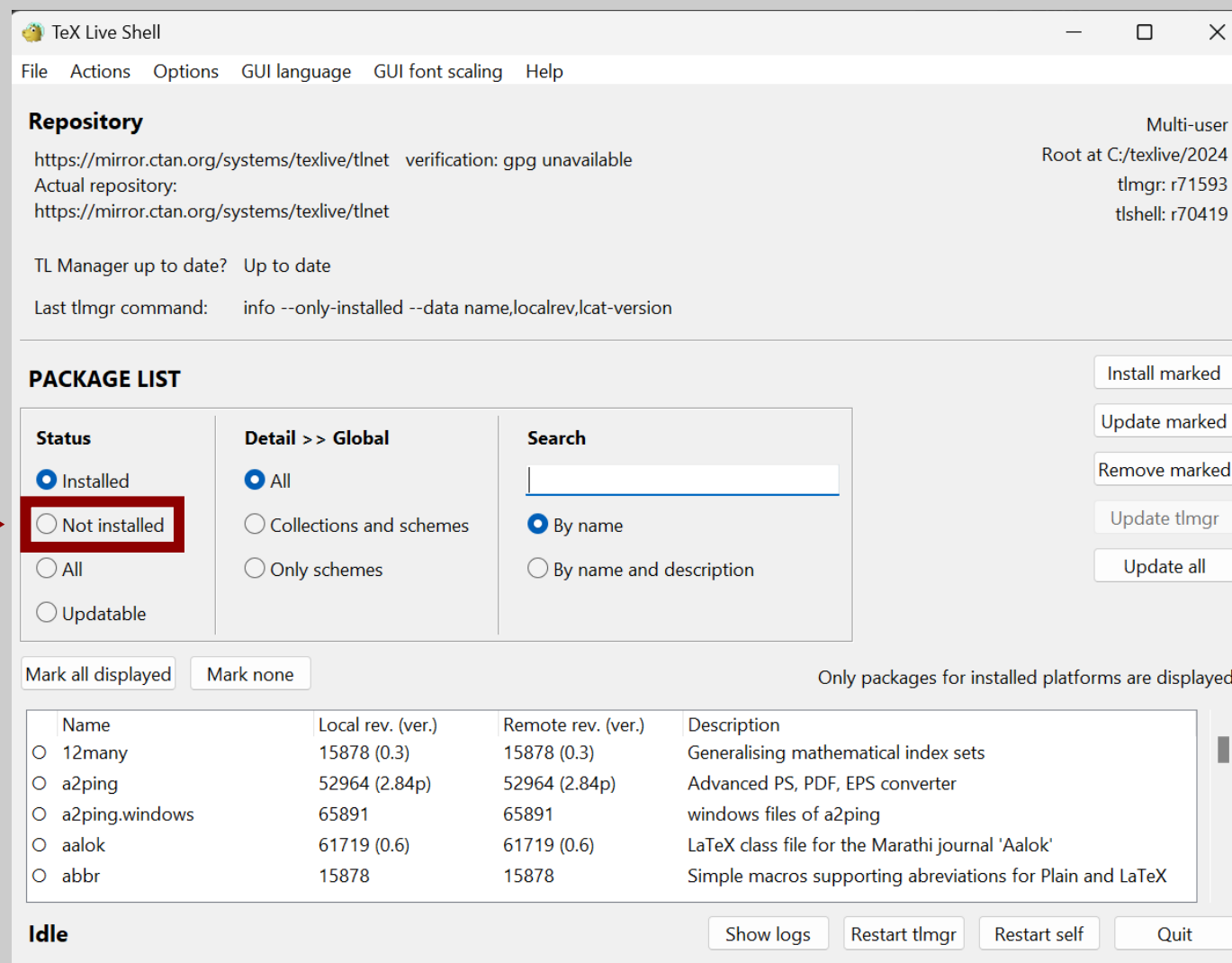
The dialog box has 'Abort' and 'Close' buttons. A red arrow points to the 'Close' button. Below the dialog box, the 'PACKAGE LIST' is visible, showing a table of packages with columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description.

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)	15878 (0.3)	Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)	52964 (2.84p)	Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891	65891	windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)	61719 (0.6)	LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878	15878	Simple macros supporting abbreviations for Plain and LaTeX
<input type="radio"/> abstyles	15878	15878	Adaptable BibTeX styles
<input type="radio"/> accents	51497 (1.4)	51497 (1.4)	Multiple mathematical accents
<input type="radio"/> accfonts	18835 (0.25)	18835 (0.25)	Utilities to derive new fonts from existing ones

נלחץ על
"Close"
ונסיים את
הטעינה.

התקנת חבילות נדרשות

כעת, נלחץ על "Not Installed".



TeX Live Shell

File Actions Options GUI language GUI font scaling Help

Repository Multi-user
Root at C:/texlive/2024
https://mirror.ctan.org/systems/texlive/tlnet verification: gpg unavailable
Actual repository: tlmgr: r71593
https://mirror.ctan.org/systems/texlive/tlnet tshell: r70419

TL Manager up to date? Up to date
Last tlmgr command: info --only-installed --data name,localrev,lcats-version

PACKAGE LIST Install marked
Update marked
Remove marked
Update tlmgr
Update all

Status
 Installed
 Not installed
 All
 Updatable

Detail >> Global
 All
 Collections and schemes
 Only schemes

Search

 By name
 By name and description

Mark all displayed Mark none Only packages for installed platforms are displayed

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> 12many	15878 (0.3)	15878 (0.3)	Generalising mathematical index sets
<input type="radio"/> a2ping	52964 (2.84p)	52964 (2.84p)	Advanced PS, PDF, EPS converter
<input type="radio"/> a2ping.windows	65891	65891	windows files of a2ping
<input type="radio"/> aalok	61719 (0.6)	61719 (0.6)	LaTeX class file for the Marathi journal 'Aalok'
<input type="radio"/> abbr	15878	15878	Simple macros supporting abbreviations for Plain and LaTeX

Idle Show logs Restart tlmgr Restart self Quit

התקנת חבילות נדרשות

בשורת החיפוש נקליד "zref"...

The screenshot shows the TeX Live Shell interface. At the top, there's a menu bar with 'File', 'Actions', 'Options', 'GUI language', 'GUI font scaling', and 'Help'. Below the menu, the 'Repository' section displays information about the current repository, including the URL 'https://mirror.ctan.org/systems/texlive/tlnet', verification status, and user information like 'Multi-user', 'Root at C:/texlive/2024', 'tlmgr: r71593', and 'tlshell: r70419'. It also shows 'TL Manager up to date? Up to date' and the 'Last tlmgr command: info --only-installed --data name,localrev,lcat-version'.

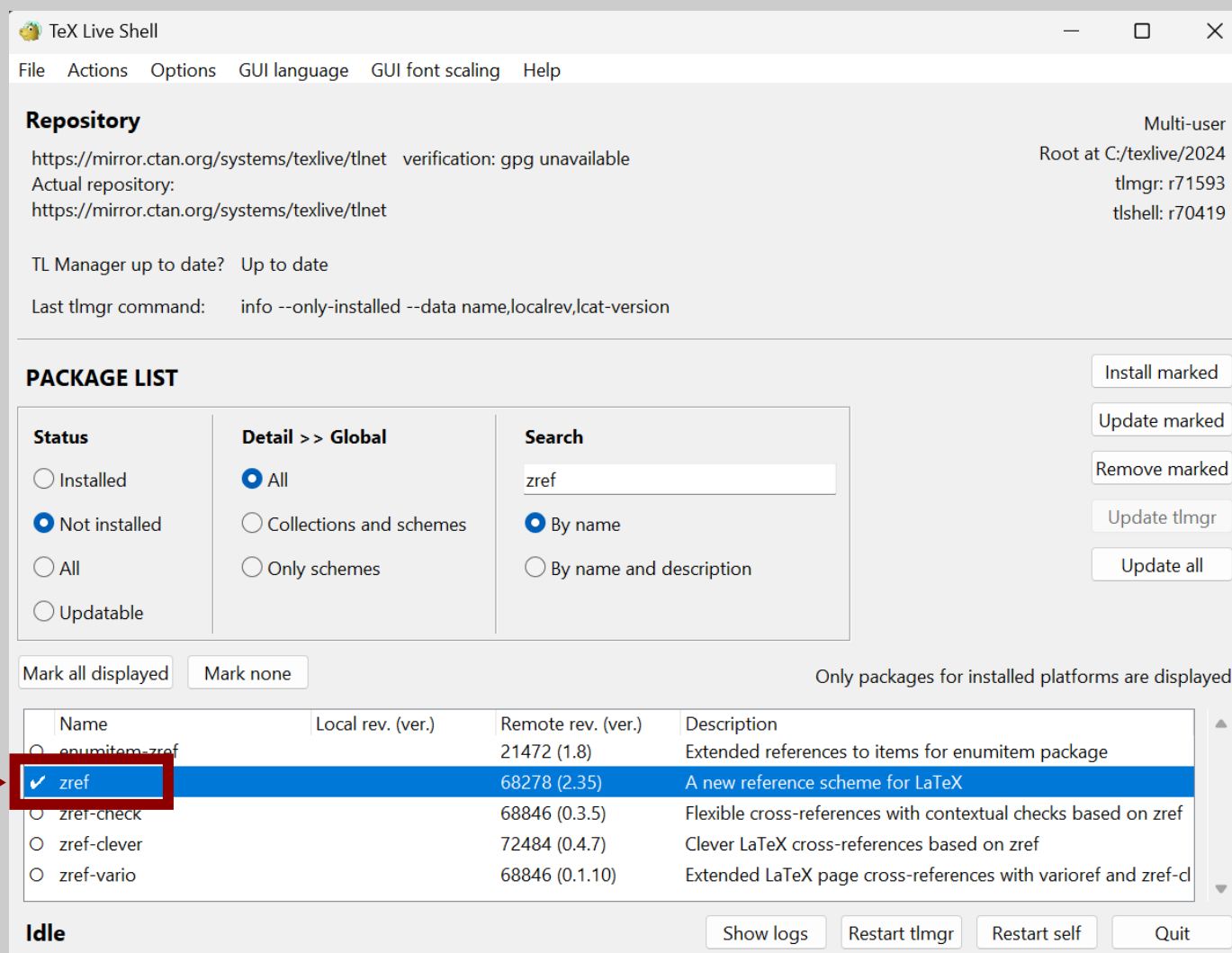
The 'PACKAGE LIST' section is active, showing search filters and a list of packages. The search input field contains 'zref', highlighted with a red box and a red arrow pointing to it. The search is set to 'By name'. The package list table below shows several results:

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> enumitem-zref		21472 (1.8)	Extended references to items for enumitem package
<input type="radio"/> zref		68278 (2.35)	A new reference scheme for LaTeX
<input type="radio"/> zref-check		68846 (0.3.5)	Flexible cross-references with contextual checks based on zref
<input type="radio"/> zref-clever		72484 (0.4.7)	Clever LaTeX cross-references based on zref
<input type="radio"/> zref-vario		68846 (0.1.10)	Extended LaTeX page cross-references with varioref and zref-cl

At the bottom, there are buttons for 'Mark all displayed', 'Mark none', and 'Only packages for installed platforms are displayed'. The status is 'Idle', and there are buttons for 'Show logs', 'Restart tlmgr', 'Restart self', and 'Quit'.

התקנת חבילות נדרשות

... ונסמן את החבילה המתאימה ב-'v'.



The screenshot shows the TeX Live Shell interface. At the top, there's a menu bar with 'File', 'Actions', 'Options', 'GUI language', 'GUI font scaling', and 'Help'. Below the menu, the 'Repository' section displays information about the current repository, including the URL, verification status, and root path. The 'PACKAGE LIST' section is the main focus, featuring a search bar with 'zref' entered and several filter options. A red arrow points to the 'zref' package in the list, which is highlighted in blue. The package list table has columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description. At the bottom, there are buttons for 'Show logs', 'Restart tlmgr', 'Restart self', and 'Quit'.

Repository

Multi-user
Root at C:/texlive/2024
tlmgr: r71593
tlshell: r70419

TL Manager up to date? Up to date

Last tlmgr command: info --only-installed --data name,localrev,lcats-version

PACKAGE LIST

Install marked
Update marked
Remove marked
Update tlmgr
Update all

Status

Installed
 Not installed
 All
 Updatable

Detail >> Global

All
 Collections and schemes
 Only schemes

Search

zref

By name
 By name and description

Mark all displayed Mark none Only packages for installed platforms are displayed

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
<input type="radio"/> enumitem-zref		21472 (1.8)	Extended references to items for enumitem package
<input checked="" type="radio"/> zref		68278 (2.35)	A new reference scheme for LaTeX
<input type="radio"/> zref-check		68846 (0.3.5)	Flexible cross-references with contextual checks based on zref
<input type="radio"/> zref-clever		72484 (0.4.7)	Clever LaTeX cross-references based on zref
<input type="radio"/> zref-vario		68846 (0.1.10)	Extended LaTeX page cross-references with varioref and zref-cl

Idle

Show logs Restart tlmgr Restart self Quit

התקנת חבילות נדרשות

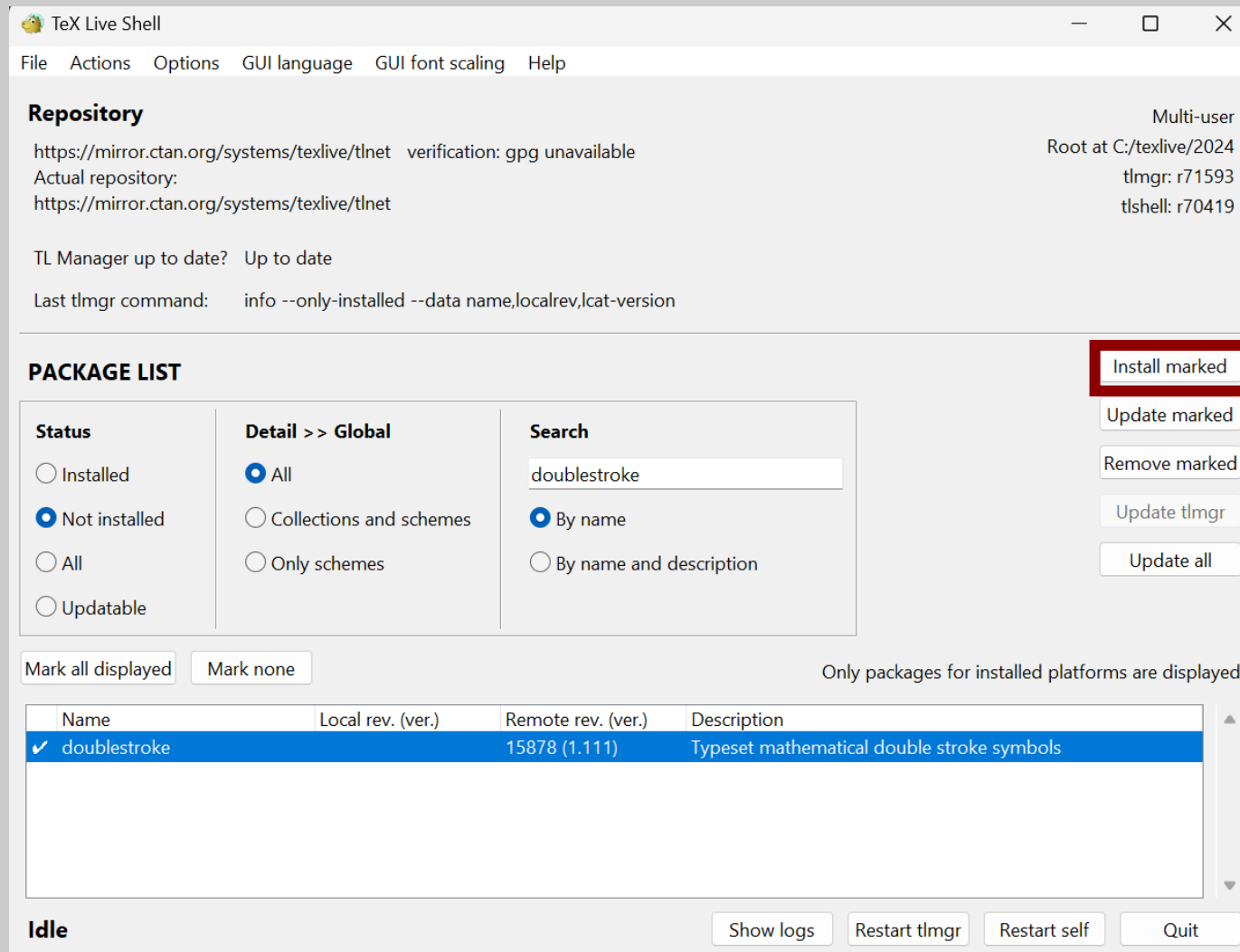
נחזור על שתי הפעולות האחרונות עבור כל החבילות שברשימה הבאה:

```
    .2  bidi
    .3  titlesec
    .4  relsize
    .5  esint
    .6  doublestroke
```

סך הכל מדובר בשש חבילות נדרשות (כולל "zref").

התקנת חבילות נדרשות

ולאחר שסיימנו נלחץ על "Install marked".



TeX Live Shell

File Actions Options GUI language GUI font scaling Help

Repository

Multi-user
Root at C:/texlive/2024
tlmgr: r71593
tlshell: r70419

https://mirror.ctan.org/systems/texlive/tlnet verification: gpg unavailable
Actual repository:
https://mirror.ctan.org/systems/texlive/tlnet

TL Manager up to date? Up to date

Last tlmgr command: info --only-installed --data name,localrev,lcat-version

PACKAGE LIST

Status

Installed
 Not installed
 All
 Updatable

Detail >> Global

All
 Collections and schemes
 Only schemes

Search

doublestroke

By name
 By name and description

Install marked
Update marked
Remove marked
Update tlmgr
Update all

Mark all displayed Mark none

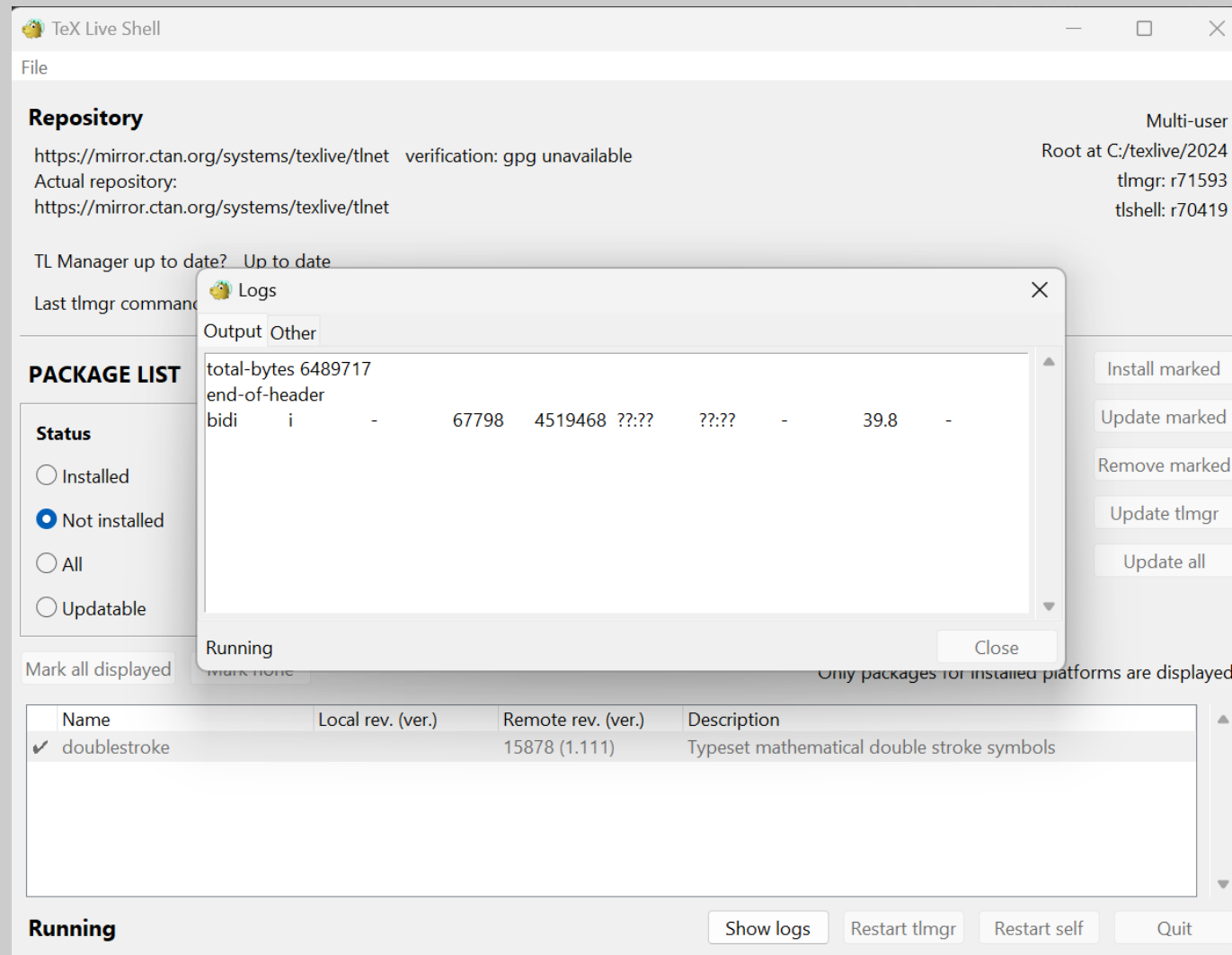
Only packages for installed platforms are displayed

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
✓ doublestroke		15878 (1.111)	Typeset mathematical double stroke symbols

Idle Show logs Restart tlmgr Restart self Quit

התקנת חבילות נדרשות

כעת ייפתח חלון שיספר לנו מה עלה בגורל ההורדה, זהו השלב הראשון:



The screenshot shows the TeX Live Shell interface. At the top, there's a menu bar with 'File'. Below it, the 'Repository' section displays the URL `https://mirror.ctan.org/systems/texlive/tlnet` and notes that verification is unavailable. It also shows the root path `C:/texlive/2024` and other identifiers like `tlmgr: r71593` and `tlshell: r70419`. A status bar indicates 'TL Manager up to date? Up to date' and 'Last tlmgr command'. The 'PACKAGE LIST' section has radio buttons for 'Status': 'Installed', 'Not installed' (selected), 'All', and 'Updatable'. A 'Running' window is open, showing the output of a command: 'total-bytes 6489717', 'end-of-header', and a table with columns for package name, local version, remote version, and description. The table shows one entry: 'doublestroke' with local version 'i', remote version '15878 (1.111)', and description 'Typeset mathematical double stroke symbols'. At the bottom, there are buttons for 'Show logs', 'Restart tlmgr', 'Restart self', and 'Quit'.

Repository

Multi-user
Root at C:/texlive/2024
tlmgr: r71593
tlshell: r70419

TL Manager up to date? Up to date
Last tlmgr command

PACKAGE LIST

Status

Installed
 Not installed
 All
 Updatable

Running

total-bytes 6489717
end-of-header
bidi i - 67798 4519468 ??? ???? - 39.8 -

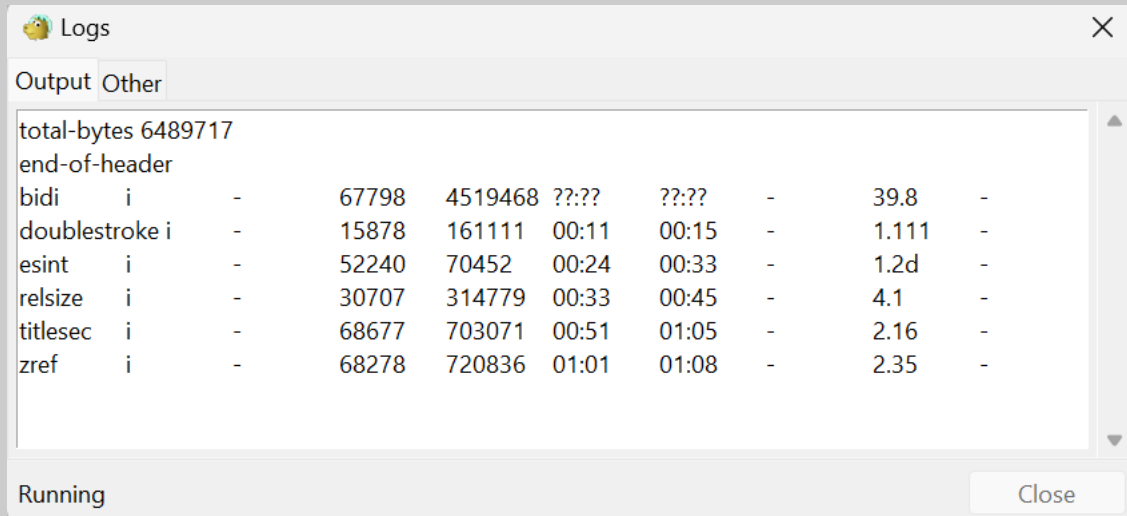
Name	Local rev. (ver.)	Remote rev. (ver.)	Description
✓ doublestroke	i	15878 (1.111)	Typeset mathematical double stroke symbols

Running

Show logs Restart tlmgr Restart self Quit

התקנת חבילות נדרשות

לאחר מכן תתווספנה החבילות האחרות לפי סדר ה-abc:



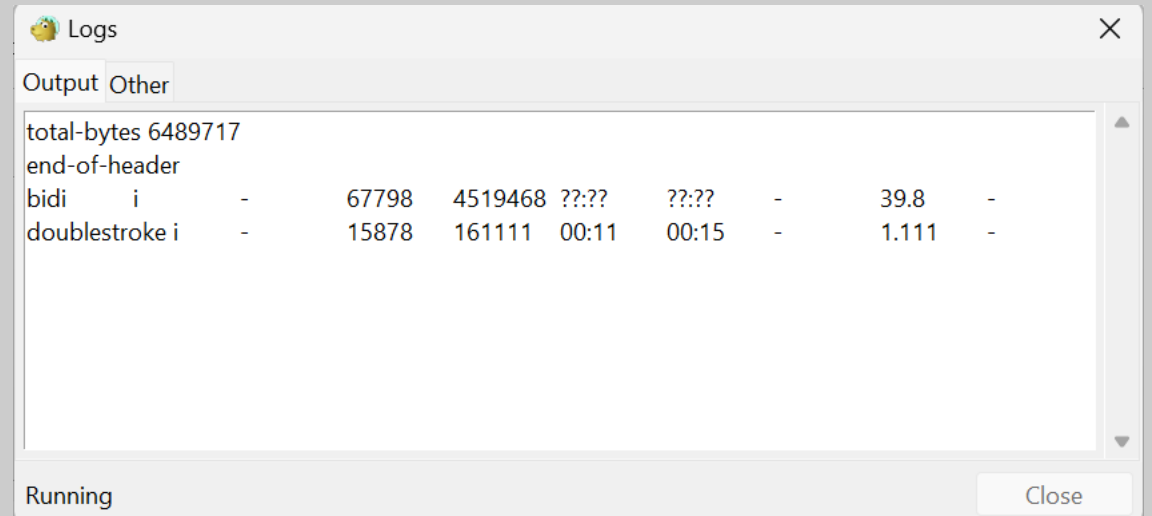
Logs

Output Other

```
total-bytes 6489717
end-of-header
bidi i - 67798 4519468 ???  ??? - 39.8 -
doublestroke i - 15878 161111 00:11 00:15 - 1.111 -
esint i - 52240 70452 00:24 00:33 - 1.2d -
relsize i - 30707 314779 00:33 00:45 - 4.1 -
titlesec i - 68677 703071 00:51 01:05 - 2.16 -
zref i - 68278 720836 01:01 01:08 - 2.35 -
```

Running

Close



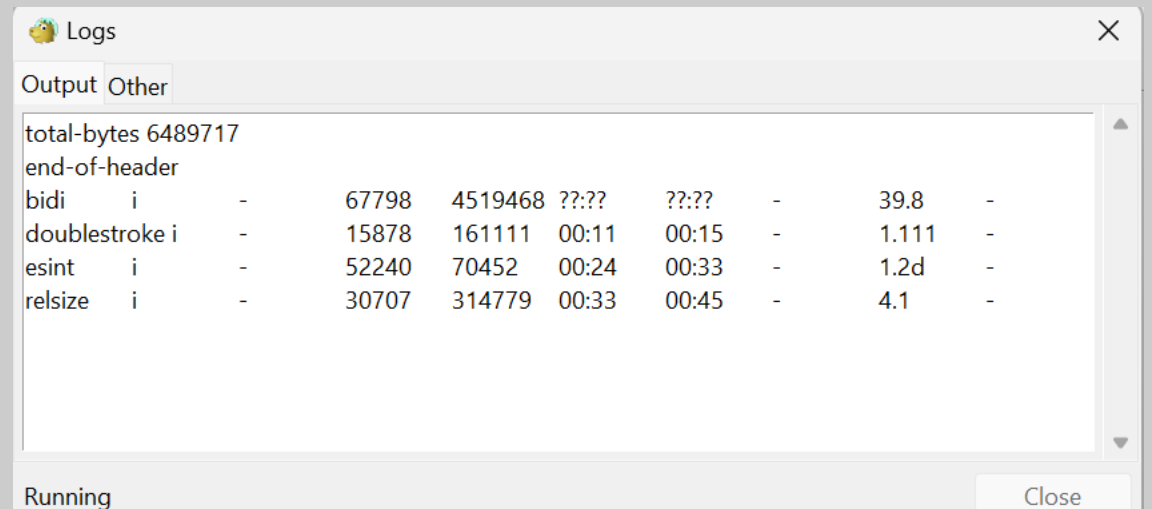
Logs

Output Other

```
total-bytes 6489717
end-of-header
bidi i - 67798 4519468 ???  ??? - 39.8 -
doublestroke i - 15878 161111 00:11 00:15 - 1.111 -
```

Running

Close



Logs

Output Other

```
total-bytes 6489717
end-of-header
bidi i - 67798 4519468 ???  ??? - 39.8 -
doublestroke i - 15878 161111 00:11 00:15 - 1.111 -
esint i - 52240 70452 00:24 00:33 - 1.2d -
relsize i - 30707 314779 00:33 00:45 - 4.1 -
```

Running

Close

התקנת חבילות נדרשות

ובשלב הבא יתווסף הכיתוב "end-of-updates", אך זה עדיין אינו הסוף.

The screenshot shows the TeX Live Shell interface. A 'Logs' dialog box is open, displaying the output of a command. The logs show the installation progress for several packages, including 'end-of-updates', which is highlighted with a red box and a red arrow. The main window shows a 'PACKAGE LIST' with columns for Name, Local rev. (ver.), Remote rev. (ver.), and Description. The 'end-of-updates' package is listed in the logs with a status of 'Running'.

Repository: Multi-user
Root at C:/texlive/2024
Actual repository: tlmgr: r71593
https://mirror.ctan.org/systems/texlive/tlnet verification: gpg unavailable
tlshell: r70419

TL Manager up to date? Up to date

Last tlmgr command

PACKAGE LIST

Status

Installed

Not installed

Updateable

Mark all displayed

Running

total-bytes 6489717
end-of-header
bidi i - 67798 4519468 ??? ???? - 39.8 -
doublestroke i - 15878 161111 00:11 00:15 - 1.111 -
esint i - 52240 70452 00:24 00:33 - 1.2d -
relsize i - 30707 314779 00:33 00:45 - 4.1 -
titlesec i - 68677 703071 00:51 01:05 - 2.16 -
zref i - 68278 720836 01:01 01:08 - 2.35 -
end-of-updates

Running

Close

Only packages for installed platforms are displayed

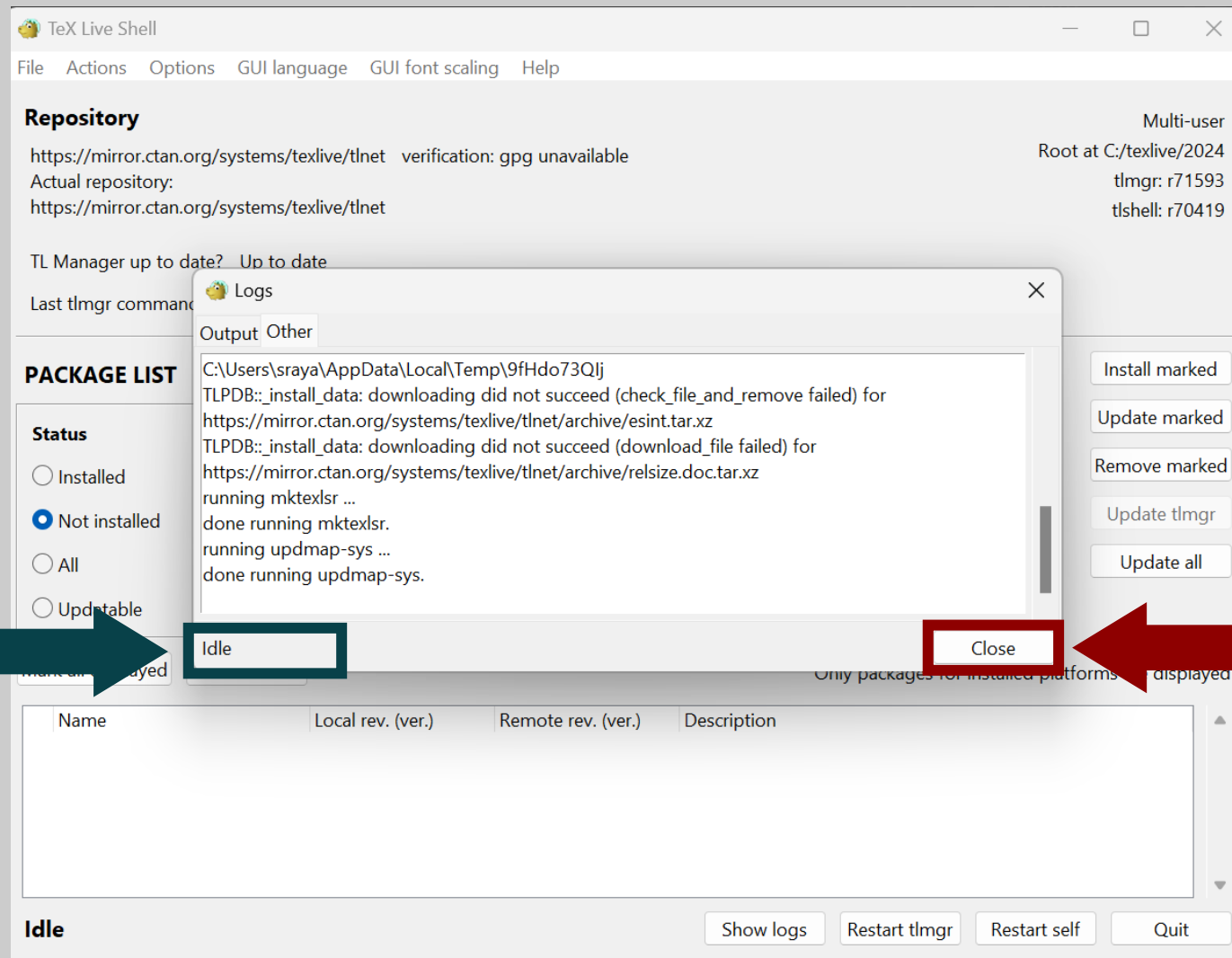
Name	Local rev. (ver.)	Remote rev. (ver.)	Description
✓ doublestroke		15878 (1.111)	Typeset mathematical double stroke symbols

Running

Show logs Restart tlmgr Restart self Quit

התקנת חבילות נדרשות

בשלב הסופי נראה את המסך הבא:



טיפ: שימו לב
שבשקופית
הקודמת, היכן
שנכתב כאן
"Idle", מופיע
"Running".

נלחץ על
"Close"
ונסיים את
ההורדה.

התקנת חבילות נדרשות

זהו! סיימנו להתקין את TeXLive!

TeX Live Shell

File Actions Options GUI language GUI font scaling Help

Repository

Multi-user
Root at C:/texlive/2024
tlmgr: r71593
tishell: r70419

https://mirror.ctan.org/systems/texlive/tlnet verification: gpg unavailable
Actual repository:
https://mirror.ctan.org/systems/texlive/tlnet

TL Manager up to date? Up to date

Last tlmgr command: info --only-installed --data name,localrev,lcat-version

PACKAGE LIST

Install marked
Update marked
Remove marked
Update tlmgr
Update all

Status

Installed
 Not installed
 All
 Updatable

Detail >> Global

All
 Collections and schemes
 Only schemes

Search

doublestroke

By name
 By name and description

Mark all displayed Mark none

Only packages for installed platforms are displayed

Name	Local rev. (ver.)	Remote rev. (ver.)	Description
------	-------------------	--------------------	-------------

Idle

Show logs Restart tlmgr Restart self Quit

אפשר
לסגור את
החלון...

מקורות

- כמעט כל מה שנכתב במצגת זו, בנוגע להתקנה שאינה בהכרח ממאגר מקומי, נכתב ע"פ [המדלין](#) של מיכאל קלי.
- כל השאר נכתב בעקבות ניסוי וטעייה אישיים.