

IguanaTex in MS PPT

- Step by step tutorial

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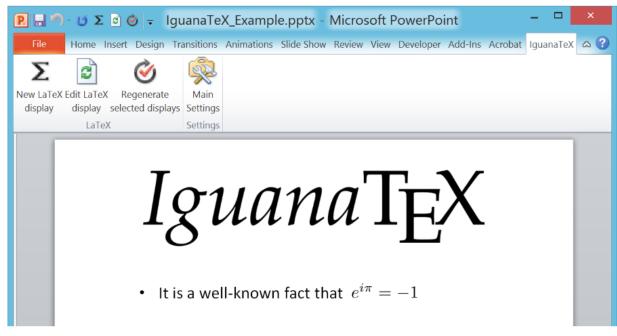
Created on 02/13/2018

Last updated on 4/7/2018

IguanaTex

- A Free LaTeX Add-In for PowerPoint on Windows
- http://www.jonathanleroux.org/software/iguanatex/

Type any valid LaTeX code, and click on Generate. IguanaTex will compile your code into LaTeX, generate an image from it and insert it into PowerPoint.





Need to change something in the equation? Just select the image, then click on "Edit LaTeX display" in the IguanaTex tab of the ribbon, and the IguanaTex dialog will re-appear so you can edit the LaTeX code.

You can also treat the equation as an ordinary PowerPoint image. For example, it can be grouped, animated, rotated, moved, and resized. Further editing of the equation will preserve all these changes.

If you need to make similar changes to multiple displays (e.g., changing latex engine, size, DPI, vector/bitmap, transparency, and simple text search & replace), select multiple displays or even multiple slides, and use "Regenerate selection" to apply all changes at once.

When you save the presentation, both the image and the LaTeX code are stored. This means that you can display your presentation on any computers on which laughed the presentation of course or which laughed the presentation of course or which laughed the presentation of course or which laughed the presentation of the presenta

What to install?

- System Requirements http://www.jonathanleroux.org/software/iguanatex/
- Windows 2000 or later. We now also support 64-bit versions of Windows.
- PowerPoint: IguanaTex has been tested with PowerPoint 2010, 2013, 2016 (both 32 and 64 bit), and PowerPoint 2003. It is likely to also work in PowerPoint 2000 and 2007.
- LaTeX (can be downloaded from MiKTeX or TeX Live)
- (Optional but recommended): <u>GhostScript</u> and <u>ImageMagick</u>, required to use the optional LaTeX to PDF to PNG conversion.
- (Optional but recommended): <u>TeX2img</u>, used for vector graphics output.

In summary, we must have installed these one by one

- Microsoft Power Point
- LaTeX (MikTex in this case)
- 3. Ghostscript (I found this is necessary though)

Installation

- Load the add-in:
 - in "File" > "Options" > "Add-Ins" > "Manage:", choose "PowerPoint Add-Ins" then "Go...", then click "Add New", select the .ppam file in the default Add-In folder or in the folder where you downloaded it, then "Close"
- Create and set a temporary file folder:
 IguanaTex needs access to a folder with read/write permissions to store temporary files.
 - The default is "C:\Temp\". If you have write permissions under "C:\", create the folder "C:\Temp\". You're all set.
 - If you cannot create this folder, choose/create a folder with write permission at any other location. In the IguanaTex tab, choose "Main Settings" and put the path to the folder of your choice. You can also use a relative path under the presentation's folder (e.g., ".\" for the presentation folder itself).
- (Optional, for pdflatex/xelatex/lualatex support) Install and set path to GhostScript and ImageMagick: To use the PDF to PNG conversion (i.e., with pdflatex, xelatex and lualatex) instead of the default DVI to PNG one, you need to install GhostScript and ImageMagick and set the appropriate full paths to gswin32c.exe/gswin64c.exe (note the "c"!) and convert.exe in the "Main Settings" window. When installing ImageMagick, make sure to check the box to "Install development headers and libraries for C and C++" and (in recent versions) to "Install legacy utilities (e.g. convert)". Download links are provided in the Main Settings window.
- (Optional, for vector graphics support) Install and set path to TeX2img: To use vector graphics output, you need to install <u>TeX2img</u> (here is the <u>direct download link</u> for recommended version 2.1.0). After unpacking TeX2img somewhere on your machine, please run TeX2img.exe once to set the various paths to latex/ghostscript, then set the <u>full</u> path to TeX2imgc.exe (note the "c"!) in the "Main Settings" window.
- The code assumes that you have LaTeX installed and that the "pdflatex" command can be found by the system. To confirm this, you can open a command window and type pdflatex.

Step 1: download lguanaTex v1.55 (.ppam)

http://www.jonathanleroux.org/software/iguanatex/

IguanaTex

Quick links: [Index] [FAQ] [Google Group]

Latest version:

The latest version of IguanaTex (currently v1.55 -- September 28, 2017) should work for all users, on 32-bit or 64-bit Windows, running 32-bit or 64-bit MS Office, on PowerPoint 2003, 2007, 2010, 2013, and 2016.

Recommended download (all users): <u>lguanaTex v1.55 (.ppam)</u> (September 28, 2017)

MD5: f6063a07f200f8042e98b3d7aafac22b

SHA256: 7b6252488e566fe72036bef35561178f59d605b55a43e89327ac80bc8b3201e4



Important note regarding malware detections: Recently, several anti-virus softwares and firewalls have started reporting IguanaTex_v1_55.ppam as malware, sometimes even blocking download. After careful review of the code, I believe that these are false positives (more details at the bottom of this page). If you are having difficulties downloading the file above, you can either white-list it with your anti-virus software, or try one of the other versions: Password protected .zip file containing the add-in (password: IguanaTex), Developer add-in, Official source, Developer source (for the source versions, open and "save as" a .ppam add-in file, that you then need to load).

New features:

v1.50+: vector graphics support; batch edit mode; insertion of vector graphics files (.pdf/.eps/.ps/.emf) as PowerPoint shapes; and many more.

v1.40+: platex (Japanese) support; templates; per-display settings; TexPoint compatibility; read .tex from file; edit in external editor; regenerate multiple displays at once; relative path settings; and many more.

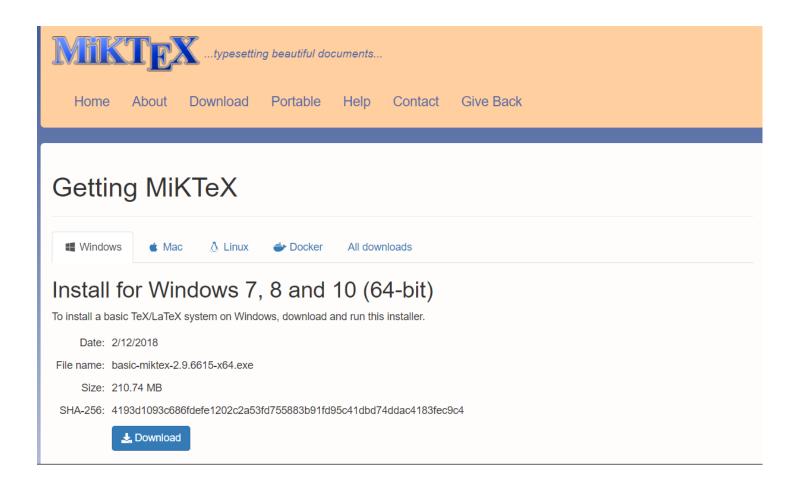
Since v1.37: UTF-8 support; new PDF to PNG conversion option, e.g. to handle Tikz; selection between pdflatex/xelatex/lualatex; various usability improvements; better error handling.

IguanaTex Google Group: To be informed of the release of new versions, you can join the IguanaTex Google Group.

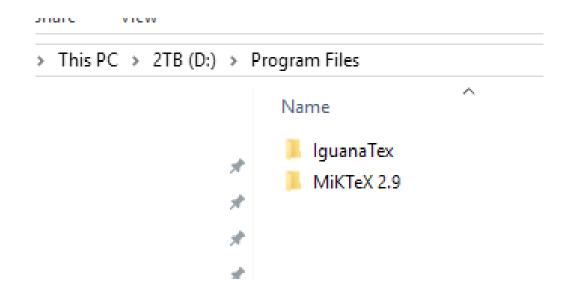
laugna Tay is free, but if you like it and would like to show your appreciation. Lencourage you to donate to the non-profit

Step 2: install MikTex

- https://miktex.org/download
- Instructions
 - https://miktex.org/howto/install-miktex



Step 3: Create a folder IguanaTex in the directory you like. Temporary files will be created in this folder.



Step 4: install ghostscript

need to create a folder manually if you use a different directory other than in C:/

If you are unsure of whether you can use the AGPL release, or require a commercial license, you can contact: Artifex Sales

<u>PLEASE NOTE</u>: AGPL Ghostscript is not optimized for the stringent resource requirements of embedded environments such as laser printer or MFP applications. The Artifex Ghostscript distribution includes additional engineering work that makes this distribution commercially competitive for these environments. To obtain this distribution for evaluation at no cost, please contact: Artifex Sales.

License	GNU Affero General Public License	Artifex Artifex Commercial License
Ghostscript 9.22 for Windows (32 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Windows (64 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Linux x86 (32 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Linux x86 (64 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 Source for all platforms	Ghostscript AGPL Release	Ghostscript Commercial License

Destination Folder

D:\Program Files\gs\gs9.22\

Space required: 40.4MB
Space available: 1732.6GB

Artifex Software Inc.

< Back Install Cancel

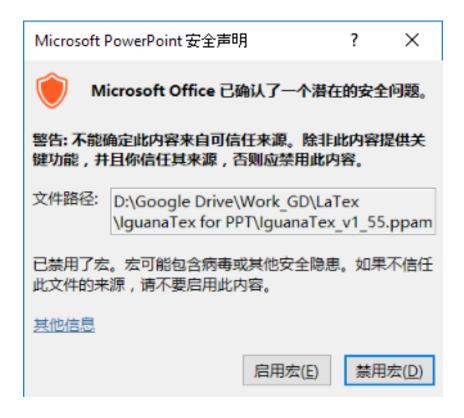
S GPL Ghostscript Setup

Choose Install Location

Choose the folder in which to install GPL Ghostscript.

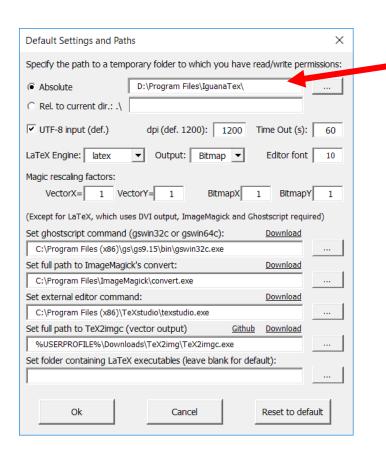
NOTE: The Linux binaries are for testing/evaluation purposes only, they do not come as installers or installable packages.

Step 5: open "IguanaTex_v1_55.ppam", and trust this macro

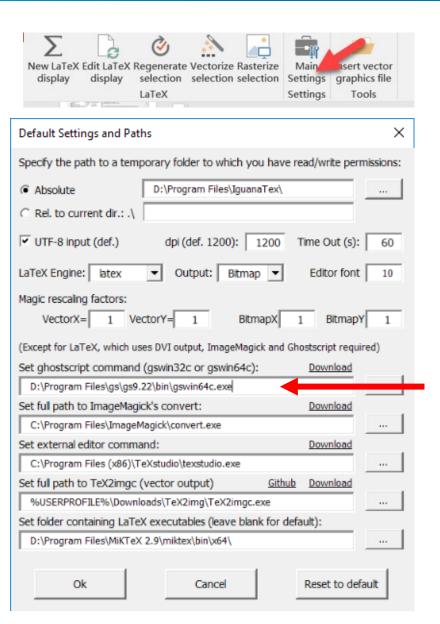


My OFFICE is Chinese version. Sorry if you don't understand it. ©

Step 6: type in the absolute path of the temporary folder you've created



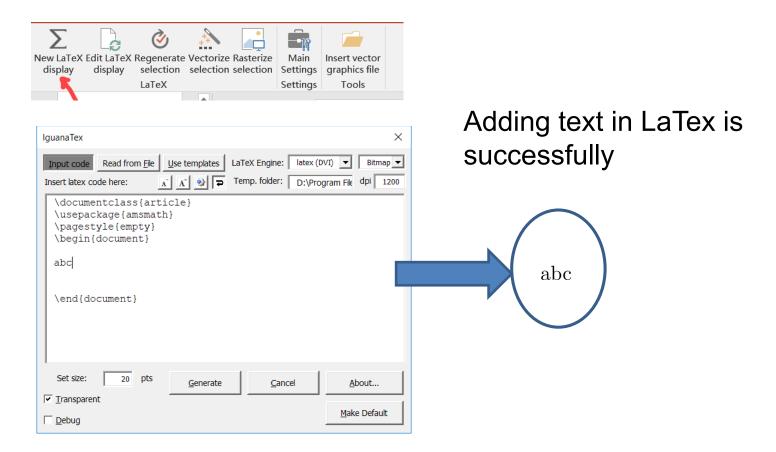
Step 7: locate the gswin64c.exe in "MainSettings"



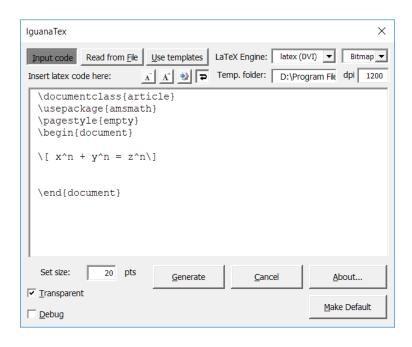
Last step

All done.

Test #1: adding text

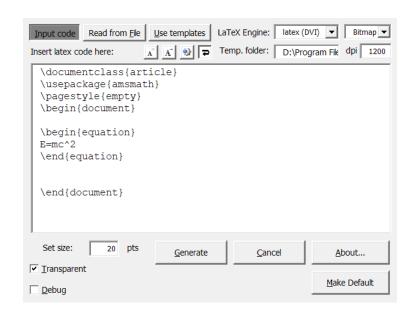


Test #2: adding math



$$x^n + y^n = z^n$$

Another way to display the math equation



$$E = mc^2 (1)$$

https://www.sharelatex.com/learn/Mathematical_expressions

LaTex Mathematics environments

Mathematics environments [edit]

LaTeX needs to know when text is mathematical. This is because LaTeX typesets maths notation differently from normal text. Therefore, special environments have been declared for this purpose. They can be distinguished into two categories depending on how they are presented:

- text text formulas are displayed inline, that is, within the body of text where it is declared, for example, I can say that a + a = 2a within this sentence.
- displayed displayed formulas are separate from the main text.

As math requires special environments, there are naturally the appropriate environment names you can use in the standard way. Unlike most other environments, however, there are some handy shorthands to declaring your formulas. The following table summarizes them:

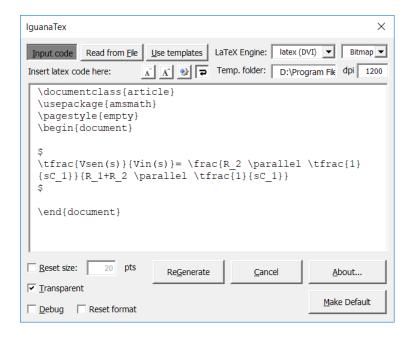
Туре	Inline (within text) formulas	Displayed equations	Displayed and automatically numbered equations
Environment	math	displaymath	equation
LaTeX shorthand	\(\)	\[\]	
TeX shorthand	\$\$	<mark>\$\$\$\$</mark>	
Comment			equation* (starred version) suppresses numbering, but requires amsmath

Suggestion: Using the \$\$...\$\$ should be avoided, as it may cause problems, particularly with the AMS-LaTeX macros. Furthermore, should a problem occur, the error messages may not be helpful.

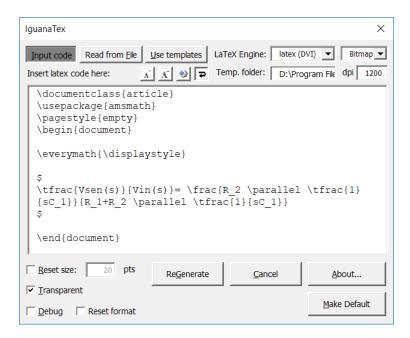
The equation* and displaymath environments are functionally equivalent.

https://en.wikibooks.org/wiki/LaTeX/Mathematics

Comparison of equation



$$\frac{Vsen(s)}{Vin(s)} = \frac{R_2 \| \frac{1}{sC_1}}{R_1 + R_2 \| \frac{1}{sC_1}}$$



$$\frac{Vsen(s)}{Vin(s)} = \frac{R_2 \parallel \frac{1}{sC_1}}{R_1 + R_2 \parallel \frac{1}{sC_1}}$$

-END-Thank you!



Backup slides



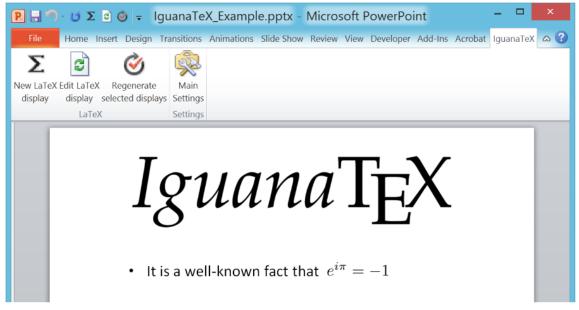
IguanaTex



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Must have 1) Power Point 2) LaTeX (MikTex in this case) installed 3) ghostscript

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- (Optional but recommended): <u>TeX2imq</u>, used for vector graphics output.

Now, try ghostscript 32bit

Frequently Asked Questions about IguanaTex

Quick links: [Index] [Download] [Google Group]

The following are some common issues and problems with IquanaTex and how to solve them.

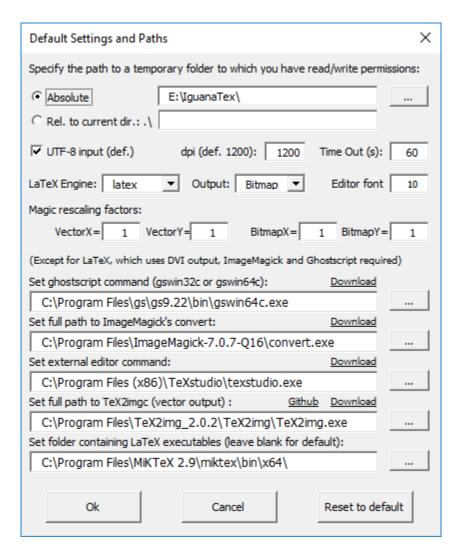
Error messages
Other bugs
How do I...
System requirements

Error messages

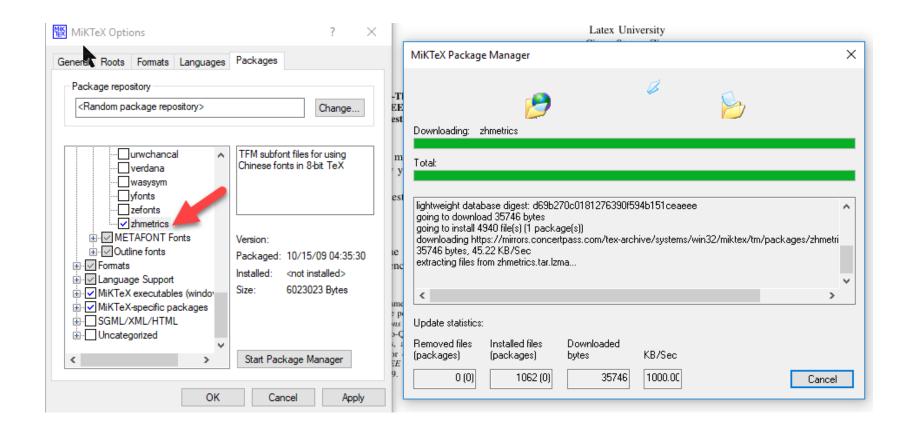
Q: When pressing the Generate button in IguanaTex, I get the error message: Could not start process: 'latex-interaction=batchmode "addin_tmp.tex"'. GetLastError returned 0.



A: This problem occurs when IguanaTex is unable to locate LaTeX in order to compile your Latex file. To verify that this is indeed the problem, click on Start, then on Run, then type cmd and press Enter. In the new window type latex and press Enter. You should see the Latex command prompt. If instead you receive an error message such as 'latex' is not recognized as an internal or external command, then there is a problem with your installation of LaTeX. Verify that you have LaTeX installed and that the version you are using is still supported by its developers. Reinstalling the latest version if necessary should resolve most problems. On Windows, the most common LaTeX installations are MikTex and TeX Live.



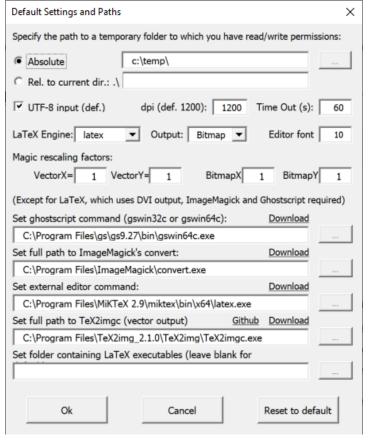
Add the package "zhmetrics" in MiKTeX

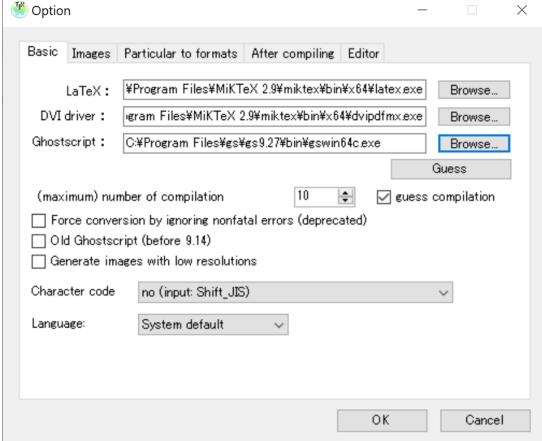


Tex2Img - not working 5/6/2019

C:\Program Files\MiKTeX 2.9\miktex\bin\x64

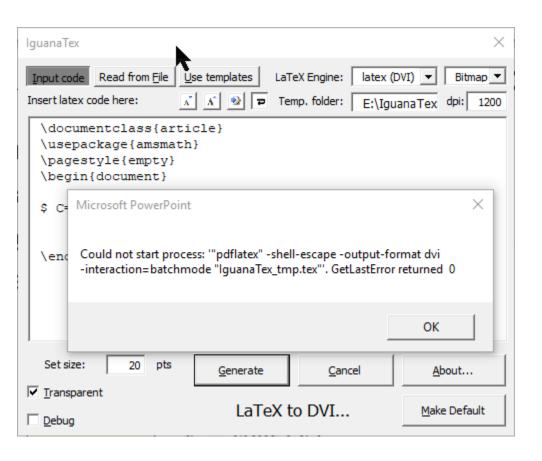
https://github.com/abenori/TeX2img/issues/4





Other installations are optional

Error



www-eng.lbl.gov/~dleitner/USPAS_2016...Of.../Installing%20lguanaTeX.docx

Installation:

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- (Optional) Install and set path to GhostScript and ImageMagick:
 To use the PDF to PNG conversion (i.e., with pdflatex, xelatex and lualatex) instead of the default DVI to PNG one, you need to install GhostScript and ImageMagick and set the appropriate full paths to gswin32c.exe/gswin64c.exe and convert.exe in the "Main Settings" window.
- The code assumes that you have LaTeX installed and that the "pdflatex" command can be found by the system.

Install GhostScript



https://www.ghostscript.com/download/gsdnld.html

Ghostscript Downloads

Which license is right for me?

For example, for personal use, use without redistribution, and use with no technical support the GNU Affero Public License (AGPL) download is your choice.

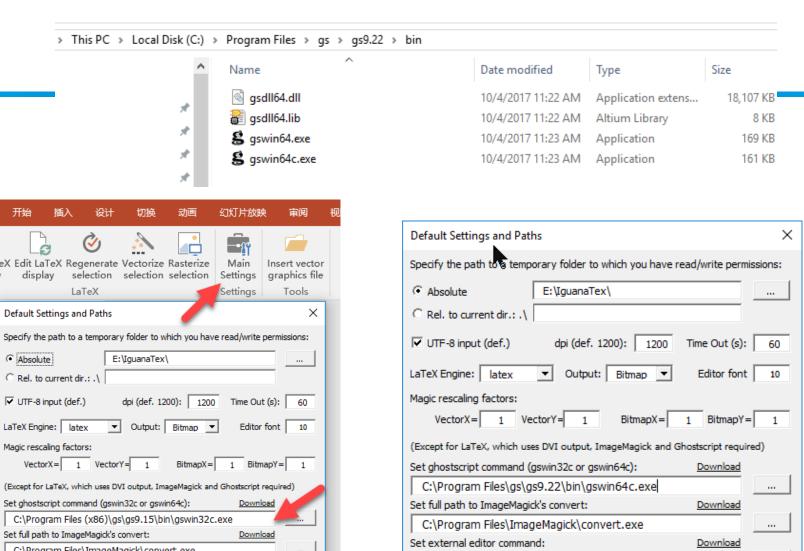
If you are unwilling/unable to abide by the terms of the AGPL (for instance, if you wish to redistribute these software packages

or derivations thereof commercially), or if you wish to pay for technical support, you will need to acquire a commercial license from Artifex.

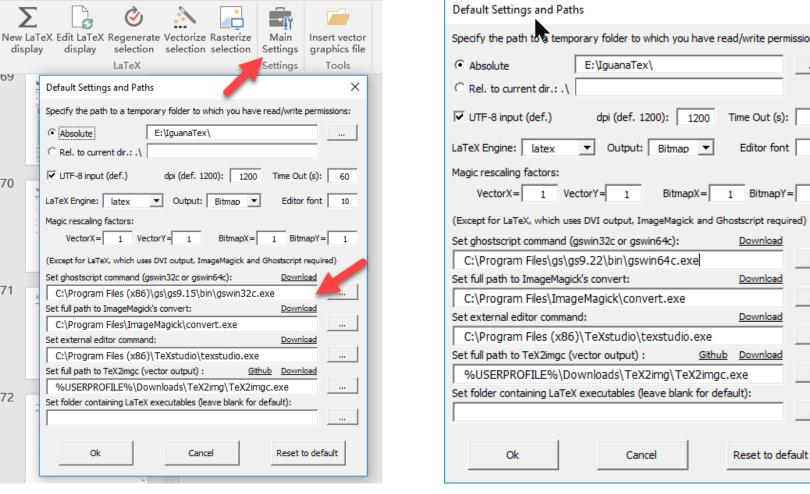
If you are unsure of whether you can use the AGPL release, or require a commercial license, you can contact: Artifex Sales

<u>PLEASE NOTE</u>: AGPL Ghostscript is not optimized for the stringent resource requirements of embedded environments such as laser printer or MFP applications. The Artifex Ghostscript distribution includes additional engineering work that makes this distribution commercially competitive for these environments. To obtain this distribution for evaluation at no cost, please contact: Artifex Sales.

License	GNU Affero General Public	Artifex
		Artifex Commercial License
Ghostscript 9.22 for Windows (32 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Windows (64 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Linux x86 (32 bit)	Ghostscript AGPL Release	Ghostscript Commercial License
Ghostscript 9.22 for Linux x86 (64 bit)	Ghostscript AGPL Release	Ghostscript Commercial License



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文件

Install ImageMagick

Windows Binary Release

ImageMagick runs on Windows 10 (x86 & x64), Windows 8 (x86 & x64), Windows 7 (x86 & x64), Windows Server 2012, Windows XP (x86) with Service Pack 2, Windows Server 2003 (x86 & x64) with Service Pack 2 (verify MSXML6 is present), Windows Server 2003 R2 (x86 & x64), Windows Server 2008 (x86 & x64) with Service Pack 2, and Windows Server 2008 R2 (x64).

The amount of memory can be an important factor, especially if you intend to work on large images. A minimum of 512 MB of RAM is recommended, but the more RAM the better. Although ImageMagick runs well on a single core computer, it automagically runs in parallel on multi-core systems reducing run times considerably.

The Windows version of ImageMagick is self-installing. Simply click on the appropriate version below and it will launch itself and ask you a few installation questions. Versions with Q8 in the name are 8 bits-per-pixel component (e.g. 8-bit red, 8-bit green, etc.), whereas, Q16 in the filename are 16 bits-per-pixel component. A Q16 version permits you to read or write 16-bit images without losing precision but requires twice as much resources as the Q8 version. Versions with dll in the filename include ImageMagick libraries as dynamic link libraries. Unless you have a Windows 32-bit OS, we recommend this version of ImageMagick for 64-bit Windows:

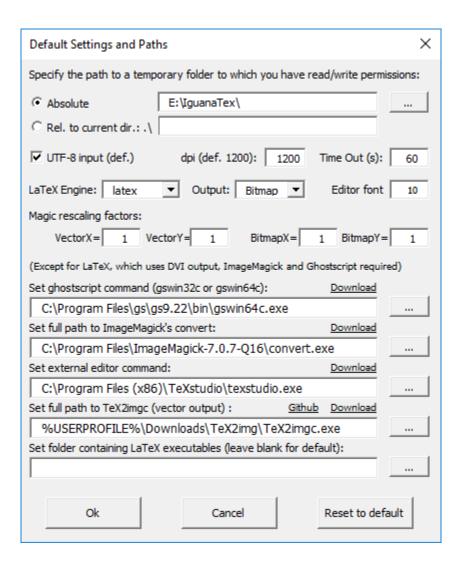
Version	HTTP	FTP	Description
ImageMagick-7.0.7-11-Q16-x64-dll.exe	download	download	Win64 dynamic at 16 bits-per-pixel component

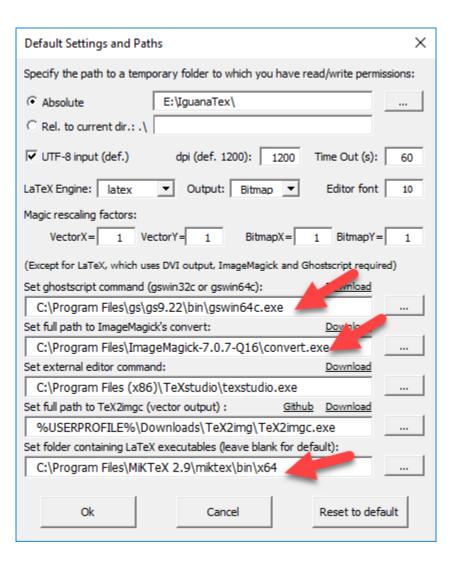
Or choose from these alternate Windows binary distributions:

Version	HTTP	FTP	Description
ImageMagick-7.0.7-11-Q16-x64-static.exe	download	download	Win64 static at 16 bits-per-pixel component
ImageMagick-7.0.7-11-Q8-x64-dll.exe	download	download	Win64 dynamic at 8 bits-per-pixel component
ImageMagick-7.0.7-11-Q8-x64-static.exe	download	download	Win64 static at 8 bits-per-pixel component
ImageMagick-7.0.7-11-Q16-HDRI-x64-dll.exe	download	download	Win64 dynamic at 16 bits-per-pixel component with high dynamic-range
m-LA MMK			



Update the directory of both ghostscrip and ImageMagick





TeXstudio

https://www.texstudio.org/

