

Titivillus V1.2.1

(Last Review: 30 January 2021)

brought to you
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1 Purpose

Titivillus (www.riedlberger.de/titivillus) adds spellchecking for Latin and Ancient Greek to Microsoft Word on Microsoft Windows. It not only flags possible mistakes, but also gives you suggestions for possible corrections and allows you to add entries to a personal dictionary. Titivillus is free of charge.

2 Read this – what you REALLY need to know to get started

- (a) After a successful installation of Titivillus, Latin and Ancient Greek have been added to your Microsoft Word application. However, they do not appear under these names in the list of languages. Rather two pre-existing languages have been overwritten:

isi Xhosa is Latin

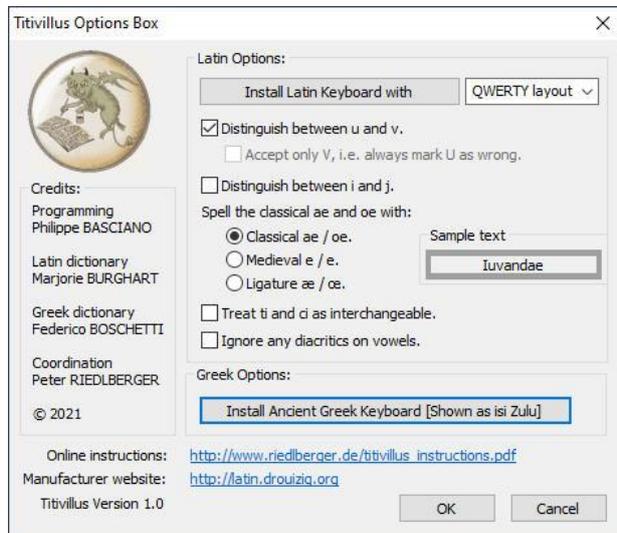
isi Zulu is Ancient Greek

So, if you wish to type in Latin, change to isi Xhosa and start typing. Or if you wish to spellcheck an existing paragraph in Ancient Greek, highlight it and select isi Zulu. [Note: in older versions of Microsoft Word, these languages are called Xhosa and Zulu; so, if you do not find isi Xhosa and isi Zulu, check under the names without the preceding “isi.”]

- (b) If you use the Greek Polytonic Keyboard included with Microsoft Windows, you **must** read section 5, “How to keep Ancient Greek [and Latin] sticky,” below. This is important, for otherwise you will encounter annoying behavior (i.e., Microsoft Word changing to the Modern Greek spellchecker on its own).
- (c) To spellcheck Latin, you can also use “Latin” instead of “isi Xhosa.” You may wonder: “Why the heck do they then have ‘isi Xhosa’ at all?” Actually, using “Latin,” although possible, adds a further complication. To learn more about this, read section 5, “How to keep Latin and Ancient Greek sticky,” below. If you are too lazy to read section 5, then please use “isi Xhosa” to spellcheck Latin texts!
- (d) Titivillus at this time is not capable of detecting accentuation mistakes related to enclitics and the usage of acute/grave. To know more about this and other limitations, refer to section 3, “Known Limitations.”
- (e) There are different conventions for spelling Latin. Some authors/publishers/countries distinguish *v* and *u* in their spelling (i.e., *veni vidi vici* or *mundus vult decipi*), some prefer not to (i.e., *ueni uidi uici* or *mundus uult decipi*). Titivillus is capable of spellchecking both variants, but you must choose (otherwise, a mixture of the two, e.g., *ueni vidi uici*, would pass muster, which is clearly unwanted behavior). When you first install Titivillus, you are asked to choose one of five presets, two of them matching spelling conventions for ancient and three of them spelling conventions for medieval Latin. If you want to change your settings later, open the “Titivillus Options.” For more information on them, refer to section 3, “Titivillus Options.”

3 Titivillus Options

To launch the “Titivillus Options,” double-click its desktop icon or select “Titivillus > Titivillus Options” in the start menu. This is what you will see:



The two buttons for installing the Latin and Ancient Greek Keyboards will be discussed below in section 5, “How to keep Latin and Ancient Greek sticky.” Instead, we focus here on the Latin spelling options.

Most changes you perform here will have an immediate effect on the sample text, *Iuvandae*. So, if you uncheck “Distinguish between u and v,” you will see *Iuuandae* instead. The presets depend on what you chose during the installation process, but of course you can modify anything now or later.

There are three options which cannot be exemplified by *Iuvandae*, so let us have a brief look at them:

- The checkbox “Accept only V ...” makes sense only if you do not distinguish between u and v, i.e., if you use the *Iuuandae* spelling convention. People who do so disagree on how to spell (e.g.) *Ulpianus*: should be it be *Ulpianus* or rather *Vlpianus* (as the Romans didn’t distinguish between u and v anyway)? If you prefer *Vlpianus Valerium Iuuat* over *Ulpianus Valerium Iuuat*, check this box.
- “Treat ti and ci as interchangeable” is required for medieval texts which do not distinguish between them (so, e.g., both *nacio* and *natio* would be accepted as correct).
- “Ignore any diacritics on vowels” is important if you mark out vowel weights with macrons, etc., or indicate the stress or similar.

Important: if you change any of these options, Microsoft Office must be completely closed and re-started. Before this happens, the new settings will not be applied. The easiest way to completely close and restart Office is a reboot. If you want to do so manually, do not forget that Microsoft Outlook (which is also part of Office) must be closed as well. Even the Microsoft Office App Launcher, if not closed, will prevent your changes from being applied. If all of this sounds too complicated for you, just reboot after any change here, and you will be fine.

Also important: in case you have already worked on a given document and have done some spellchecking in Latin, and *then* update your settings in the “Titivillus Options,” this does *not* automatically trigger an update of the current spellchecking status (to put it differently: words that were marked in red before are *still* marked in red, even if they are now correct according to the adjusted options). To rectify this, select “File > Options > Proofing > Check Document,” and the spellchecker will proof the whole document again.

4 Why isi Xhosa and isi Zulu?

Attentive Microsoft Word users may have discovered that Word's language list contains Latin and Greek. Why not use these entries?

"Greek" is actually Modern Greek. If Greek were overwritten with "Ancient Greek," Greek-speaking users could no longer spellcheck their native language.

"Latin" can actually be used, just as "isi Xhosa," with exactly the same spellchecking results. However, in this case, there is a problem of "stickiness" to overcome, see section 5, "How to keep Latin and Ancient Greek sticky."

Note that the list of languages in Word cannot be expanded. It is completely set in stone by Microsoft. One cannot add (e.g.) "Ancient Greek," one can only overwrite any one of the existing languages.

5 How to keep Latin and Ancient Greek sticky

Pay attention, this is the only complicated part of the instructions! Microsoft Word has the disingenuous habit of automatically changing to other proofing languages based on the keyboard layout you are using. A concrete example: let's assume I have the German and the (Modern) Greek layout installed. Whenever I change from German to Greek, the Microsoft Office spellchecker automatically changes to Greek, without further action required.

While this sounds helpful, it can be really annoying in other cases. For example, let's assume you work with a German keyboard and change the proofing language to **Latin** (sorry for the screenshots from a German-localized Office copy):

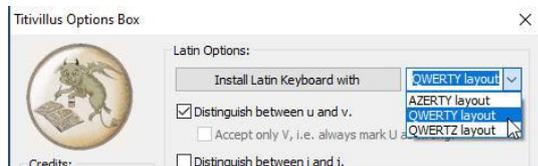


I type one word, hit the space key — and I am back again to German as proofing language. Why? Because Office recognizes that I work with a German keyboard, hence the language I type in cannot be but German, and Office tries to be helpful. Sigh.

What can we do about this? Obviously, one easy solution is type as "German" and apply the "Latin" spellchecking after the fact, by highlighting the paragraph and marking it as Latin. A better solution is to switch to "isi Xhosa" instead of "Latin." Why? For some reason unknown to us, "isi Xhosa" is sticky. So, if you select "isi Xhosa" as proofing language, type something, and hit the space key, the proofing language will continue to be "isi Xhosa," not German. [Side-note: we have no idea why "isi Xhosa" is treated differently from "Latin" in Office, but it is as it is.]

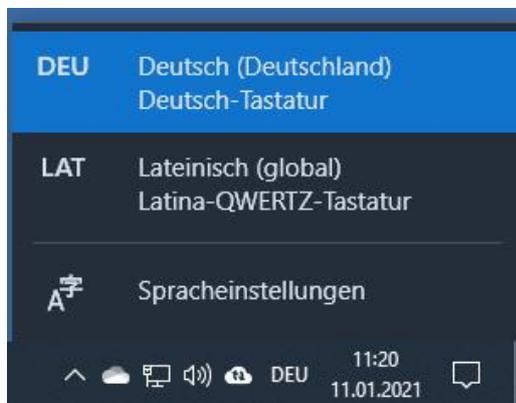
If you use Windows 10, and ONLY if you use Windows 10, there is a third solution, which is slightly more complicated, but gives better results if you need to switch very often between Latin and another language: we will install a Latin keyboard. The advantage is that you can use a keyboard shortcut (WINDOWS+Spacebar in current Windows versions) to change to the other keyboard (and proofing language). Besides, it's perhaps more elegant to see Latin as "Latin" instead of "isi Xhosa."

First, find out about your native keyboard layout. Have a look at the start of the first row of letter keys. Most people will find QWERTY there, although in France, Belgium and the French-speaking world, this is AZERTY, and in Germany, Austria, Switzerland and the West Balkans, there is QWERTZ. Launch the “Titivillus Options,” choose the drop-down menu entry corresponding to your native keyboard, and install the Latin keyboard:



After that, **please reboot your computer**. If not, the keyboard might not appear, or, even if it appears, not work properly (this is worse, as you might think there is a deeper problem, while there isn’t). *Do not even think of e-mailing for support before you reboot!*

After the reboot, you’ll find Latin as a supported input language in the task tray:



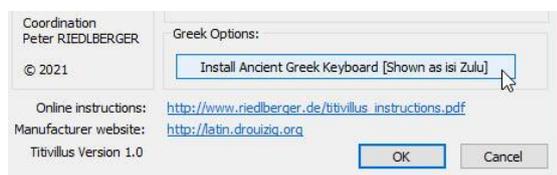
Whenever you switch to Latin, spellchecking will also change. For quick changes, use the keyboard shortcut (WINDOWS+Spacebar in Windows 10).

To sum up: you do not need to install the Latin keyboard if you wish to use Titivillus. But if you do not, please spellcheck any Latin text as “isi Xhosa” to avoid stickiness issues. If you do not use Windows 10, then there is no other option, as you can’t install the Latin keyboard.

Now to **Ancient Greek**, where you might face similar problems. You are lucky if you input Ancient Greek with a tool like MultiKey (www.oeaw.ac.at/kal/multikey) or similar: you can change to “isi Zulu” and back again, and Microsoft Word will stay well-behaved.

Things are not so easy if you type Ancient Greek with Microsoft Window’s Polytonic Greek keyboard layout! For if you activate “isi Zulu” proofing and you finish typing a word, there’s a problem: as soon as you hit the spacebar, Microsoft Word thinks it’s cleverer than you: “Aha, this person is using a Greek keyboard layout! The only language in the world that uses a Greek keyboard layout is ‘Greek’! I will help this confused person and change proofing to [Modern] Greek!”

Luckily, this problem can be overcome. Open the “Titivillus Options” and click “Install Ancient Greek Keyboard [Shown as isi Zulu]”.



After that, **please reboot your computer**. If not, the keyboard might not appear, or, even if it appears, not work properly (this is worse, as you might think there is a deeper problem, while there isn't). *Do not even think of e-mailing for support before you reboot!*

After the reboot, you'll find "isi Zulu" with a "Polytonic Greek Keyboard" as supported input language in the task tray:



You can now switch between your native keyboard and the "ZUL" keyboard which at the same time changes the proofing language used by Microsoft Word. For quick changes, use the keyboard shortcut (WINDOWS+Spacebar in Windows 10).

Important: after any modification of the keyboard layouts, please reboot. This applies when you install a layout or when you uninstall one. If you wish to install both the Latin and Ancient Greek keyboards, please also reboot in-between. Otherwise, there might be unexpected behavior. Also note: to remove the Latin or Ancient Greek keyboard, use the "Titivillus Options" or "Apps & features," as the uninstall button in "Language settings" will be grayed out for these custom-created keyboard layouts.

To sum up: if you are accustomed to typing ancient Greek using the Polytonic Greek keyboard, it is strongly suggested that you install the "isi Zulu / Polytonic Greek keyboard." You don't need it, however, if you use Multikey or a similar tool to input ancient Greek.

6 Known Limitations

The Latin part of Titivillus (which is actually based on the last version COL, *Correcteur Orthographique Latin*) is technically mature; there shouldn't be any problems. Clearly, not every word can be recognized by the dictionary, but the number of unknowns is minimal.

That being said, for technical reasons it is impossible to mix different spelling conventions in one Word document. So, for example, let us assume you would like to cite, in the same document, a passage from an ancient author in a given edition, and another passage from a medieval author in an edition that uses different spelling conventions. Here you are out of luck: they cannot be proofed at the same time (but of course, you can spellcheck them one after the other).

The Greek part of Titivillus doesn't check any grammar rules. So, wrongly accentuated combinations such as ἀπὸ εἰσὶν and οἱ δὲ περιπτοὶ are currently not flagged as incorrect. After all, each and every of these words can appear, even if never in this sequence. In other words: final acute or gravis and the accentuation of enclitics remain your own responsibility, at least for now.

For now, neither the Latin nor the Greek part is capable of checking for uppercase letters at the start of phrases. (If you are interested in the reason why: in Microsoft Word, spellchecking and grammar

checking are distinct. As of now, Titivillus exclusively works with the spellchecker. Harnessing the grammar checking would mean significant effort beyond what is feasible without funding.)

Both the Latin and the Greek spellcheckers function only in their respective alphabets correctly. This means: if you mark, say, a German text as “isi Xhosa”/”Latin,” everything will appear in red (because the Latin spellchecker proofs text in Latin script correctly). However, if you mark an Ancient Greek text as “isi Xhosa”/”Latin,” no mistake will be flagged at all! The same is true vice versa: if you mark a Latin (or German or French ...) text as “isi Zulu” (i.e., Ancient Greek), no mistake is indicated at all. In practice, this should not be too much of an issue, as long as you do not confuse “isi Xhosa” and “isi Zulu.”

7 I'm using MacOS (or Linux)

For the time being, there won't be a MacOS version of Titivillus because of the substantial time and effort which would be required for that.

The easiest workaround is to spellcheck your manuscript on a Windows computer (even if the manuscript was authored on a Mac computer). You also could think about using LibreOffice (or OpenOffice) on a Mac or on a Linux machine for which you can download the following dictionaries:

Latin: https://drouizig.org/images/stories/difazier/COL/pakadaou/dict_la.zip

Greek: <http://www.himeros.eu/grc.oxt>

Note: there is no support for these dictionaries. Also, you will have better results if you use Titivillus on Microsoft Windows, because many improvements (especially for the Greek) have been introduced.

8 Why isn't Titivillus Open Source?

It's closed source because in order to gain access to Office proofing, you need to be vetted by Microsoft and sign an NDA. This means that Philippe is the only person who can have access to the Titivillus code.

9 I encountered a problem while using the spellchecker

The spellchecker is working mostly correctly, but marks some correct words as mistaken. This can happen with any spellchecker, sorry about that. You can add such words to your dictionary.

When I change proofing to “Latin,” after every word, Microsoft Word changes from “Latin” to my native language. Read section 5, “How to keep Latin and Ancient Greek sticky,” carefully. Either use “isi Xhosa” as proofing language or install the Latin keyboard.

When I type in Ancient Greek using the Polytonic Keyboard, after every word, Microsoft Word changes from “isi Zulu” to “Greek,” i.e. Modern Greek. Read section 5, “How to keep Latin and Ancient Greek sticky,” carefully, install the isi Zulu keyboard, and use it!

I have installed the Latin and/or Ancient Greek keyboard, but it doesn't work. I think I have already mentioned that you need to reboot every time you change anything about the keyboard layouts. Read section 5, “How to keep Latin and Ancient Greek sticky,” carefully. Uninstall the keyboard layout (if you have both, one at a time), and reboot (i.e., reboot twice if you have both installed). Then install again, and reboot. Lots of reboots, but it helps.

Spellchecking doesn't work at all. Please download www.riedlberger.de/sample.docx and www.riedlberger.de/Titivillus-test.pdf . Perform the test on sample.docx exactly as described in the

PDF. Please be extra-careful that you follow each and every step precisely as described. Did this test work?

If yes, your problem has nothing to do with Titivillus. Typically, proofing has been deactivated (the little checkbox in the dialog window, cf. the explanation in the PDF). Or there are too many spelling mistakes in one document, and Microsoft Word stopped proofing for that document. Or there is some other similar issue.

If no, send an e-mail to peter@riedlberger.de and include as many details as possible about your problem.

10 The people who brought Titivillus to you

Philippe Basciano coded Titivillus. He has been working as a professional developer in international companies for a long while, and he has more than twenty years of experience in software development. His contribution to scholarship and the protection of the Breton language is An Drouzig Technologies. “An Drouzig” means “the little druid” in Breton; if you’re not sure what Breton is, it’s about time to find that out (https://en.wikipedia.org/wiki/Breton_language)! Philippe’s interest in spellcheckers started with Breton, and he has since put much enthusiasm in providing proofing for other languages.

Marjorie Burghart from CNRS (UMR 5648 CIHAM, Lyon, France) is a medievalist and digital humanist. We owe several crucial Digital Humanities initiatives to her, including the *TEI Critical Apparatus Toolbox*, *Enigma* (the latter providing help to Latin paleographers struggling with *loci desperati*) and, of course, *Verba*, which is the database underlying *Correcteur Orthographique Latin* (which, in turn, is identical with the Latin portion of Titivillus). She provides ongoing advice on the Latin part of Titivillus.

Federico Boschetti from CNR’s Istituto di Linguistica Computazionale and the Venice Centre for Digital and Public Humanities is an accomplished Digital Humanities scholar who was involved in numerous projects, including Tuft’s Perseus as a visiting scholar in 2009 and 2013. A while ago, when preparing a toolset for Optical Character Recognition of Ancient Greek, he used a dump of Greg Crane’s Morpheus to put together a dictionary of Greek word forms. This dictionary provides the base for Titivillus’s Greek proofing.

Peter Riedlberger from Bamberg University is a classicist and IT aficionado. He’s interested in late antique legislation and the Acts of Ecumenical Councils, among other things. He has got an outstanding talent for bringing the right people together. Also, he really tries to do his best when writing instructions.

11 Special Thanks

To **Bridget Almas**, who kindly pointed us to the last available Morpheus dump, which helped to significantly enhance Federico’s original dictionary.

To **Ester Carreón**, to whom we owe the gorgeous Titivillus icon.

To **Gregory Crane**, who is the person behind Morpheus.

To **Andreas Hartmann**, who set us on the right track to overcome the stickiness issue of Polytonic Greek.

To **William Whitaker** (+), whose WORDS made *Verba* possible.

12 Concluding remarks

Titivillus is a wonderful case in point of what trans-European cooperation can accomplish. It is also a child of love, so to speak: hardly ever was a project so much fun as was putting this spellchecker together. In case you still haven't googled it, "Titivillus" is the name of a demon, feared in the Middle Ages for his diabolic activity of causing writing mistakes in the production of hard-working scribes (<https://en.wikipedia.org/wiki/Titivillus>). As we caught him red-handed (see the Titivillus icon) and imprisoned him in an inescapable prison constructed out of powerful software code, he must now redeem himself by carefully vetting all of your Latin and Ancient Greek texts for possible typos.

13 Version history

30 Jan 2021	V1.2.1	Bug fix regarding the "ignore words containing numbers" option
25 Jan 2021	V1.2	Some minor bug fixes (dictionaries for very old Microsoft Office versions; adding words that include ligature diphthongs to a personal dictionary); some improvements for the suggestions (no suggestion that includes a space for Latin or with an acute on the last syllable for Greek; enhanced suggestion handling for capitalized Greek words)
19 Jan 2021	V1.1	Bug regarding the handling of some Greek uppercase letters fixed; enhanced log file
18 Jan 2021	V1.0.3	Failed installation bug fixed; settings for a second user account are now correctly saved
16 Jan 2021	V1.0.2	"Please restart Microsoft Office" dialog appears only if any setting was changed; Unicode usernames are now correctly handled
15 Jan 2021	V1.0.1	Minor bug fixed which prevented the installation under specific circumstances
13 Jan 2021	V1.0	Launch of the first version of Titivillus