

William Luttmann

Mark Boady

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### Research Report 1 : Text Editors

A new company startup, Telepatech, is making waves in the tech industry. This up and coming organization has been hitting the books on how to make a robust management strategy that will make the process of attaining new hires painless as well as fast paced training to get them up to speed quickly. Telepatech has dipped their hands into the long, ongoing debate of which text editor should their programmers use. There are so many editors out there, but it seems like management has narrowed it down to the three most well known editors VIM, Emacs, and Nano. Each one of these editors are decent in their own respect as well as having a cult-like following of diehards who swear by one over the others. Many outsiders to the tech industry may think, well what difference does a text editor make? Honestly, it makes a huge difference when trying to make edits on thousands of code files especially when you have to make repeated corrections over and over again. Of the three editors, it seems like Telepatech will be leaning towards VIM as the standard text editor for their employees to get acquainted with, and here's why!

VIM, which stands for Vi IMproved. was officially released in 1991 as a better, improved (pun intended) version of VI (Morelo). VI was developed by the one and only Bill Joy, who later on founded Sun Microsystems and eventually created the Java programming language (Auerbach). VI has been around since 1976 which puts it at about 44 years in the making. Since these two editors are one in the same, programmers have the option of typing vi or vim to open the editor and jump right into programming. One key point that the management at Telepatech loves is that VIM comes pre-installed

on most Linux distributions. This is a great aspect of this editor because most new applicants will score high with management if they have a background in a Linux or Unix environment. The VIM editor is a powerful tool, as stated by the guys over at [linuxtrainingacademy.com](http://linuxtrainingacademy.com), “[commenting on VIM] With the ability to edit and view multiple files at once, create macros, perform global substitutions, and more...” it seems that VIM would be unanimously recognized as the best editor hands down! Well, unfortunately that isn’t the case because VIM has quite a bit of a learning curve that seems to scare away some of the less experienced programmers. I will dive deeper into that later on.

For now, let's discuss the advantages that VIM has over its competition. “[VIM is] considered a ‘modular’ editor, which means there are different modes for navigating files and editing text” (Angert). Many new programmers jump into VIM and want to start typing away but get confused that the words aren’t typing! This is because when VIM opens a file, it starts in normal mode, which basically assigns almost all keys shortcuts that do something cool. To start typing as you would think, you need to press ‘i’ to enter into insert mode. There are many VIM cheat sheets available on Google to help new users get used to the shortcuts that are available. Additionally, you can run the command ‘vimtutor’ from the command line which opens a pre-made tutorial to help users learn the shortcuts. As stated by Auerbach, “Vi is one of the few programs you can use *without moving your hands* from their default touch-typing position: You don’t even need the arrow keys (that’s what H, J, K, and L are for).” The way the shortcuts are mapped provide the user with ease when attempting to make complex edits.

Now, let's see why Telepatech isn’t really interested in the other text editors that are available. “Nano is great for people who are new to the command line or for anyone who needs to make a very simple edit. If you’re a casual Linux user or hobbyist, nano might be all you ever need” (Nano vs. Emacs vs. Vim (Editor Wars!)). While Nano is well suited for beginners, Telepatech is actually looking for a more powerful tool to keep productivity high. Nano comes pre-installed on many popular Linux

distributions which is what Telepatech liked about VIM. The caveat here is that Nano provides the user with a series of prompts when saving a file or exiting a file without saving which proves to be time consuming when the programmer needs to make edits on many files at once. Another thing Nano is not great at is that it cannot open multiple files at once to the capacity VIM can. There is a small learning curve when it comes to using Nano because the shortcuts that are available are always on the screen. As mentioned before, this is great for programmers that are relatively new to the industry, but more advanced users may find this annoying as it takes up some of the screen that can be used for seeing more of the file that is being edited.

The other, more advanced editor that Telepatech has considered is Emacs. This editor has been around for about as long as its rival VI, starting around 1976. It is cross platform which can run on Apple, Linux, and Windows. Emacs falls short in some respects as there is a high learning curve. "For example, saving a file is Ctrl-x Ctrl-s. That's 2 keystrokes and seems more effort for a lot of people when you're used to just doing Ctrl-s or Cmd-s for saving a file." (Wu) Emacs has an extreme amount of customization which is what some users love. Wu also comments, "You can hardly pair with even a fellow Emacs user, since it will feel like you've suddenly entered a different universe." This is a big issue for Telepatech because the management seems to be driven on teamwork and communication. If their employees have to spend extra time explaining how they did something in Emacs because other users do not run the same configurations, that is valuable productivity time being lost. Even the guys at [linuxtrainingacademy.com](http://linuxtrainingacademy.com) commented on the extras that Emacs has to offer, "It comes with a built-in web browser, IRC client, calculator and even Tetris." This is great for an advanced Linux user because it is an all in one tool which they can open once and not need to look at another screen for as long as their session lasts. Since Emacs has all these abilities, it doesn't really do all the things it can do extremely well. For example, Emacs has web browser capabilities, but you would probably be better

off using a true web browser itself. Another issue is that at some point, programmers may need to make edits on a different system. The main problem with that is Emacs is not installed on many distributions by default, “So many Emacs users will grudgingly learn the basics of Vi to use in a pinch.” (Auerbach)

So it seems that Telepatech has done their homework when coming to their final decision on which text editor they will use as standard. Nano is completely out of the question as they will be looking to bring in applicants that have a strong understanding of the Unix environment. This means that their employees will not need the on-screen keyboard shortcuts and complexity when it comes to making changes and saving many files at once because yes, they are sure they want to save their file with the name they have already given. When it comes to Emacs, Telepatech is not really impressed that it does not come with the operating system out of the box. Although Emacs has the capability to do many things, Telepatech is looking for one thing and one thing only, a text editor. Emacs is good at editing text, but the management is much more impressed with the availability and scalability of VIM over Emacs. When it comes to banding teams together to discuss different methods or approaches to a solution while using text editors, Emacs may not have all users on the same page because of its customization and extendability. As it stands, it looks like Telepatech will be adopting VIM as their standard text editor of choice.

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