

Discuss in 300 words why scripting is a good approach for this type of problem

1. Perl has excellent support for fast regular expression and the implicit variables makes it easy to do basic string crunching with very little code.
2. the batch system can manage large repeated work easily and solve common problem that are too boring to do manually.
3. it can be executed in any Unix-like operating system without any modifications due to the existing tools in system.
4. it can be interpreted and executed without compiling and easily integrate with other languages and technologies.

For example, my work extract the data using the shell and pipeline, which can make system extract the data instead of doing manually. Then, when I get the raw data, I analyze and transform the raw data into useful data. I process the data using Perl based on its powerful regular expression. There are a number of languages like Perl, PHP, Python, JavaScript relying on a particular style called PCRE- Perl Compatible Regular Expressions, it can be executed in any Unix-like system without any modifications. For Gnuplot, it helps users automate plot creation and create terrific plots. It can define the different formatted graph.

how the script could be extended to have additional functionality.

Scripting language could extend functionality by other packages. In scripting language, there are lots of open source packages you can import and use it. Meanwhile, the script could redirect to another script. For example, you could create a library that can be either dynamically loaded or statically linked into your perl, when you want to use C source code from Perl. XS is convenience which writing glue code directly in C and linking it into your Perl. For my work, you can add more regular expression to read and parse users' input using `ARGV[1]` for understand the input. For example, according to Perl regular expression, `ab{2,4}c`, it can describe an a followed by two, three or four b's followed by a c. Then programming can parse these sentence. Also, users can add the authority of files in table. In my work, I have parsed ownership from `ls -l` command, we can easily extract authority from `ls -l` command as well. Meanwhile, you can add some function through creating other files to redirect in your script. For example, you would like to create colorful and interactive website, the website can be create in another file.