


☐

I'm not robot


reCAPTCHA

Continue

626 area code time now

If you're like me, you probably had the experience of going over code you wrote a few months ago and not understanding a single line. I know it happened to me numerous times. By contrast, if I will read this write-up 10 years from now, I will still understand its significance (although I might think I was naïve and ignorant of writing it). The reason is obvious, this piece of text is written in plain English, not a programming language like Javascript or (lo and view) C++. Even experienced programmers understand natural language better. What's wrong with programming languages? It's pretty obvious that even though we may have spent years writing computer code, we're still much more comfortable with English. Using non-natural language for coding has a significant cost involved. Any programmer knows that writing the code is just the beginning. The code must be documented, debugged, maintained, and refactored. The non-natural nature of code requires significant effort and time to understand the logic of the code when touched. Training other developers to use the code is even more demanding. Working with public APIs (or company wide APIs) presents an even bigger challenge of documentation and training. If only we could code in English. Initial coding is just 5% of software lifecycle costs... but is Natural Language Programming FeasibleNatural language programming has long been the holy grail of the software world. There have been some attempts to design programming languages to look like natural language (Cobol, SQL, AppleScript), but neither was close to looking real natural language. Natural Language Programming has just been considered an unsustainable goal. Not of modern, often used programming languages trying to look natural language. The most common reasons for leaving NLP (Natural Language Programming) are: Language is too complex for computers to understandThere are so many ways to say a single assignment in human language Language is inherently ambiguous. Computer language should be unambiguous (deterministic)While no one can deny the viability of these statements, they present a binary view of the goal, either you have natural language programming or you don't. I would like to suggest that achieving the goal of NLP should be a gradual process, moving along a continuum between not natural computer code and natural language. I'd like to offer the following phases to achieve the challenging goal: Limited NLPComputer Aided NLPRequirement Programming Phase I – Limited NLPAt this phase, we suggest a computer language that's read like a natural language, but writing it requires an understanding of programming and knowledge of available natural language features. Consider the following JavaScript Notation is borrowed from mathematical functions, a remnant of the days software has been studied in Maths departments. There's nothing natural about it. Now consider the following parallels: length of Strfocus on element button1insert Node1 before Node2The meaning of the second sequence is exactly the same as the first sequence, but the second sequence is readable and looks natural even for non-programmers. the main difference is that arguments are aligned in the function name rather than grouped into parentheses. A small syntactic difference makes a big difference in readability of code. The inline format does not require any complex machine learning algorithm. It just has to do with changing the syntax of the language. consider the following definition of a function: DEFINE length of S AS return S.length; ENDThis definition can be part of a deterministic programming language, working with the same programming language paradigms we're used to. The only difference is that arguments are aligned. Another important feature of natural language than that can be entered into formal programming language uses context. In natural language, it is common to refer to an entity in the context of the phrase, using the determiner the, e.g. move the image 23 pixels to the right. In traditional programming paradigm, one of the largest probes references objects outside the function body. In practice, reference context is essential for programming. The solution passes the context as an additional argument. Needless to say, this doesn't improve readability of code. In natural programming language, it can seem that this://defining functionDEFINE moves to next token CONTEXT the text, the current position, the current token AS... END // ==> function moveToNextToken(theText, theCurrentPosition, theCurrentToken){...};/calling the functionthe text = hello world; the current position = 0;move to next token;// refers to the text and the current positionwise (the current token)Of course, the natural language compiler must support calling by reference using a context value object holding the primitive values. There are additional tweaks to existing programming languages that can make them much more natural like typing and using pronouns. Note that while the programmer who writes the code should be aware of available function length from S, the arguments that the function takes, and in general how apps are written, any person reading the text length of Str can easily understand the meaning of the phrase. Limited NLP means the author must use existing NLP function, but the reader can understand the code without prior knowledge. Implied by this is that no additional documentation is required. The code is the documentation. I have a possible syntax for a language in a github project naturally suggested. These are suggestions suggestions A Javascript natural language extension that transpires into Javascript code, similarly to the way the transpires type script works. If you believe in the project, please stare it. I promised to implement it once the project gets 100 stars. Phase II - Computer-assisted NLPIn phase I, the programming experience is pretty similar to current programming language paradigms. The programmer must: Be aware of the various features available and their syntaxDownload and integrate the required librariesWrite unambiguous code - show (length of S) rather than being length of SComputer helped NLP ease the programming process by relaxing this limitation. The output will still be the same deterministic code. However, the programmer can write a little more freely and the interactive compiler will suggest different options based on past programming history, available NLP programming corpus, and machine learning. This might suggest the following: when programmer write focuses on button 1 it would suggest focusing on (button labeled 'button 1')When programmer writes number of characters in S it would suggest existing natural feature length of SWanneer programmer write number of upper-case characters in S it would suggest importing package natural-text and changing the code to uppercase in S to the syntax of the natural function in the natural-text package. I do believe that by implementing phase I and phase II we will drastically improve the programming experience and significantly reduce the cost of software development and maintenance. However, Phase III will completely change our concept of software development. Phase III – Required ProgrammingIn my opinion, the ultimate goal of natural language programming should automatically divert computer code from a requirements document. This implies deeper natural language understanding capabilities and, a large part of the solution would be some automated software design. The computer can use online profiling or required tip to devise the best design for the job. Design can also change automatically since requirement is customized. Although it may currently seem far-fetched, I believe that with the promotion of machine learning technology and relying on the previous two phases, this goal is within reach. It may require a formalism to write the requirements, but the meaning of achieving such a phase is immense. This will completely change software engineering as we know it. How can you help If you believe in the concept of natural language programming I would suggest you take a look at my naturaljs github project. It contains some ideas of what would phase I look like. I promised to start implementing phase once the project receives 100 stars. Quote from Martin FowlerJoin Hacker Create your account to unlock your personal reading experience. Zip codes and zip codes are numeric codes used to facilitate email delivery, and area codes are used to specify a geographic region when calling a phone number. Rather than spinning through a large, unrelenting phone book, you can find and verify zip codes and area codes quite easily on the web. If you have an address or partial address, you can find the zip code through USPS Zip Code Lookup, a tool on the U.S. Postal Service website. You can also search by the city or state, or find all cities that are part of a particular zip code. The International Postcodes website, maintained by Columbia University, has an extensive index of domestic and international postcodes, in addition to posting acronyms, policies, and best practices. You can also use various search engines to find zip codes. With Google, for example, to do a zip code search by address, type what you know about the address to see a map of the location with the zip code included. You can even type something like South Laurel MD postcode to see everyone for that area (and to find links that show a full list of postcodes for that region). You can also enter a zip code to see the geographic location it belongs to, as well as a map and other related web results, such as cities that use that zip code. If you don't add zip code at the end of the search, Google might show unrelated information. For example, a search for 90210 reveals information about the TV series, while 90210 postcode shows information about the zip code. You can also find a zip code with DuckDuckGo. Enter a zip code and DuckDuckGo returns a map, the location of the zip code, weather, real estate, and other appropriate web results. A postcode lookup on Bing brings back what city/location it pertains to, maps, and local attractions, such as grocery stores, hotels, and movie theaters. If you type a partial address, Bing completes it for you and reveals the zip code. Much like with a zip code, you can use a search engine to find an area code by searching for the city. To do the reverse and find out which part of the country is related to an area code, just enter the area code in the search engine. To find an area code with Google, type the name of the city and state you are looking for, followed by the words area code. You'll usually find what you need. For international lists, search for a phrase like Kenya's calling code, and you'll receive an informative reply with the numbers you need to make a call in that nation. Type the city and state into a new Bing search and you'll more than likely see Google-like results showing you the area code at the top of the results. The same goes for international phone codes. Another way to find an area code online is with Wolfram Alpha, who bill as Computational Intelligence. This data-based search search doesn't display results like the others mentioned on this page, but with a little digging, you can find unique information about cities and say that you might not find on another search engine. Using Yahoo to find an area code is a lot like using Google; just type in the city and state name, followed by area code, and you'll get an immediate result. Finding international codes isn't as easy with Yahoo as it is with Google, but you can obviously still use Yahoo to find other websites that can give you that information. Quite a few websites specialize in finding area codes that a simple search engine query might not reveal. You can use these free resources to find almost any area code and/or country calling code in the world: Area Codes: Features area codes of mostly the United States, although other countries are also distributed here. BT Phonebook: Use this site to find area codes in the UK country codes: This site asks you which country you are calling for and to assign the correct country code, area code, or both. LincMad: A zip code map that provides a visual representation of area codes in the United States and Canada.AllAreaCodes.com: Similar to LincMad, you get a full area code map from the U.S. and Canada, but links to region-specific area code lists, details about the area codes (e.g., wireless or landline, carrier, when introduced), search tools, and printable area code Thank you for letting us know! Tell us why! Why!