Eiffel Obituary

ANDREAS BROMBACH – TIME TO SAY GOODBYE

Teaching self-made programming languages was common at ETH, even before Eiffel was introduced. First, new students were confronted with Pascal, then forced to use Oberon. Both languages were invented and developed by ETH professors and taught in introduction courses.

In the year 2001, a French computer scientist moved to Switzerland and started working as a professor of software engineering. Two years later, he started teaching the freshman course «Introduction to Programming». To keep up with the traditions of his predecessors, he introduced his own programming language: Eiffel. Named after the famous French architect Gustave Eiffel, it refers to its engineering capabilities and claims to be a language suitable for industry usage.

From the beginning, Eiffel was a constant companion during the bachelor years. Even after the first semester, the sentence «For example, Eiffel» was heard in many other lectures. Whenever a programming language was needed to illustrate a certain point, Eiffel was always mentioned. Countless comparisons were made to point out the differences between Eiffel and the currently used language.

Every time Eiffel was mentioned, a burst of laughter went through the lecture halls. The only explanation for this behavior must be a sudden feeling of nostalgia and the memories of fun and entertaining EProg lectures within the easiness of the first semester. Those lectures, being the first step into the huge world of computer science, showed the basics of object-oriented programming to both beginners and intermediate programmers. With the flawless design of Comic Sans, childish illustrations and absurd examples, it formed the foundation for further programming projects.

Important aspects of computer science, such as the difference between a cooking recipe and an algorithm or literally the single steps of a loop iteration were taught intuitively. The exercises, based on the graphical library "Traffic", motivated students for over a decade to spend more time with Zurich's tram network, different kinds of public transportation and of course the correct spelling of "Polyterrasse".

Eiffel has some style guidelines to maintain a clear structure. It favors "snake casing", which uses underscores to separate words in very_long_method_name_examples instead of ThisUglyCamelCaseExample. Ironically, the only violation of that naming convention is the developing software itself, EiffelStudio. No whitespace, no underscore is written between the words.

Besides simple and beginner-friendly syntax, the language has some other unique features.

What happens when a meteorite hurtles towards earth, collides with a gigantic explosion, thus shifting the magnetic orientation which then creates a local anomaly right underneath your hard drive, resulting in some random bit changes which happen to be in the exact location storing your currently executed Eiffel

program – that suddenly receives a wrong input and crashes? Well, you should have thought of such an event and written a contract to ensure correctness even in post-apocalyptic conditions.

Although Eiffel is similar to other more well-known object-oriented languages, it has a lot of small but important differences.

After laboriously learning that the indices of an n-sized array go from 0 to n-1, Eiffel insisted on starting at index 1.

After finally memorizing all types of loops and conditionals, Eiffel throws them away and teaches you one single universal way of loop construction.

Similar keywords, like return and result or for and from were often the cause for outbursts of pure anger and strange noises coming from the computer rooms.

For such cases, the course book gives some very good advice, titled "Zen and the Art of Reacting to Compiler Messages":

"When the compiler rejects your class, cut the cursing. Take a breath, have a cup of organic herb tea (optional), reflect on the deeper meaning of life, consider the hours of debugging that might have ensued if the program had been allowed to compile then produce an error at run time rather than compile time, ponder how to avoid such mistakes in the future, and rejoice." (Touch of Class, p.367)

Those whose student ID number begins with "15-" are the last generation of ETH students who learned to program well with Eiffel. They have to keep their memories, good ones, but also the bad ones, and prevent that language from falling into oblivion.
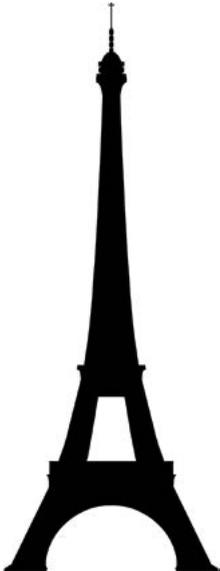
Eiffel
2003 – 2015

My deepest condolences to all new students, who will never have the chance to work with this exceptional language and settle for plain Java instead. May the Chicago Board of Trade, Axa Rosenberg and an unknown Swedish health care service continue Eiffel's long history and help Eiffel achieve another breakthrough.

```
class
    OBITUARY
create
    make
feature
    make
        do
            print("Goodbye Eiffel World.")
        end
end
```