**My feelings and discovery of Prolog**

**Discovery**

Prolog, which was created and given out by Colmeraner and his team in 1970. This is a logical programming language facing deductive reasoning. (Gao Ji, 2008) Because of its understandable grammar, rich expressiveness and unique non-procedural language characteristics, it is very useful for human beings’ reasoning.

At the beginning, this programming language was widely used in the area of NLP to build the understanding links between machine and human. But now, it is gradually used in AI researches, for example, creating specialists’ system, intelligent knowledge bases and so on.

The entire structure of Prolog programming is very similar to SQL as they both have one part to description the datasets and another part is to do the query.

**Opinion towards “Prolog” thinking**

Unlike the usual procedural logic thinking I used in daily programming, prolog is a brand-new type of thinking way which can help me to realize a function by programming in another way.

However, it also has some drawbacks. For instance, apart from dealing with logical questions, it is better to use some other “Object Oriented Programming” thinking because in this way we can split tasks into easy pieces and deal with it easily but not deal with every small task with hundreds of steps.

**Application in working area**

When it comes to my working field, to some extents, Prolog can help me with processing dataset as one of its characters: Prolog programming is actually a kind of intelligent relational database which is based on relational database. After I learned some simple coding rules of Prolog, I also found that some grammars and rules that are very similar to the SQL query sentences.

Besides, when I need to realize some logic questions in working situations, instead of using other programming languages or reasoning it on my own, Prolog is the best choice for this kind of questions. Let me use the following question as an example.

This is an old question we always use it as a standard logical reasoning question:

* Socrates is a human;
* Human will die;

So, we can use the following Prolog reasoning process:

person(socrates). % Truth

mortal(X) :- person(X). % Rule

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%Query

?- mortal(socrates). %Judge Socrates will die or not

true.

?- mortal(X). % Who will die

X **=** socrates

As we can see, we can deal with logic questions easier and without being confusing or doing a complex programming.

But in other situations, I would rather use other programming languages because they have higher efficiency and Prolog clauses are not simple and short enough, it will cost more time on processing.

# Bibliography

Gao JiQinmingHe. (2008). Fundamentals of Artificial Intelligence (Second Edition). Higher Education Press.