```
Subj:    PROLOG Location
Date:    Fri, Aug 25, 1995 1:39 PM PDT
From:    linda@nilenet.com
To:      campbell@ufomind.com
```

Prolog was invented by Alain Colmerauer and Phillipe Roussel at the
University of Aix-Marseille in 1971.

Linda Goranson

```
Date:   Fri, Aug 25, 1995 1:39 AM PDT
From: sjf@mmcorp.com
To: campbell@ufomind.com
```

I checked last night and Prolog was developed by 'Alain Colmerauer' and
associates around 1970 at Universite d'Aix-Marseille II. You can check
Roussell 1975: Prolog: Manuel de Reference et Utilisation.

```
Subj:    PROLOG sample
Date:    Fri, Aug 25, 1995 9:34 AM PDT
From:    linda@nilenet.com
To:      campbell@ufomind.com
```

We can often translate between normal English and PROLOG with little
effort. For example, as soon as we know that :- means if and , means and,
we can readily understand the following program:

```
 PROLOG                                        English
 is_situated in( london, england ).           London is in England.
 born_in( sarah, london ).                     Sarah was born in London.
 nationality( Person, english ):-             A person is English if
 born_in( Person, City ),                      that person was born in a city
 is_situated_in( City, england ).             and that city is in England
```

However, beyond a certain point, a lot of effort is required, and the
'learning curve' rises steeply. For example, to solve the 'Towers of Hanoi'
problem, you must transfer the three disks from pole A to pole B. But you
can only move one disk at a time, and you must never put a disk on top of a
smaller one.

The PROLOG program below solves this problem very elegantly - and the same
program can be
used for any number of disks.

```
        towers(Number):-
                transfer(Number, left, middle, right).

        transfer(0, _, _, _).

        transfer(Number, Source, Destn, Spare):-
                N is Number -1,
                transfer(N, Source, Spare, Destn),
                write(['Move a disk from ',Source,' to ',Destn]),
                nl,
                transfer(N, Spare, Destn, Source).
```

All you have to do is type:

```
        ?- towers(3).
```

for 3 discs (or more or less if you wish), and PROLOG will reply:

```
        [Move a disk from ,left to ,middle]
        [Move a disk from ,left to ,right]
        [Move a disk from ,middle to ,right]
        [Move a disk from ,left to ,middle]
        [Move a disk from ,right to ,left]
        [Move a disk from ,right to ,middle]
        [Move a disk from ,left to ,middle]

        yes
```

All well and good - but try understanding the program! For the newcomer to

PROLOG, coming to understand the detailed workings poses considerable
difficulties.