



SWI Prolog

SWI-Prolog

SWI-Prolog editor is an open source implementation of the programming language Prolog. It is a free software and you can download it from here <http://www.swi-prolog.org/Download.html>.

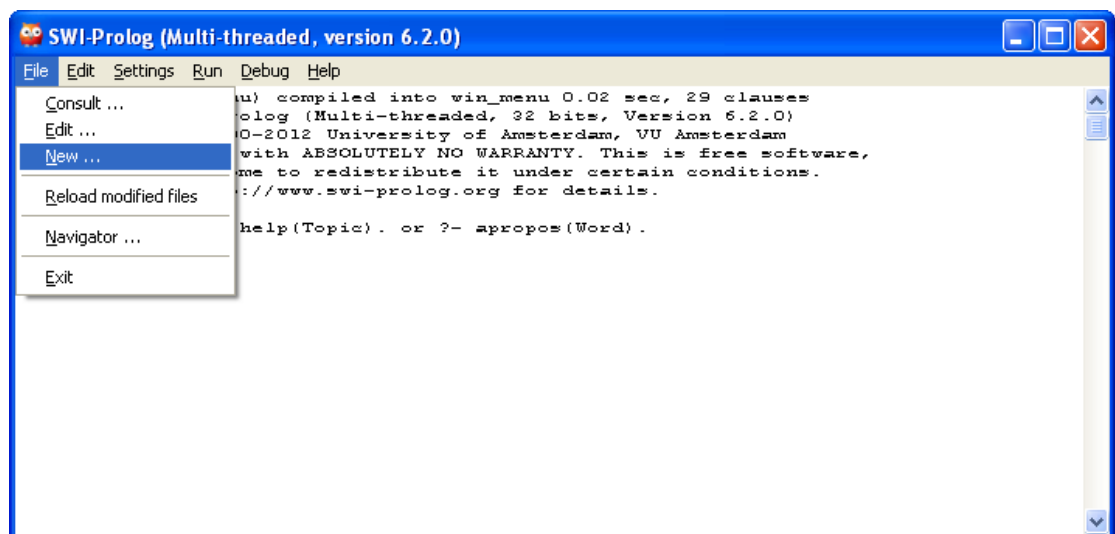
Getting started:

After successful installation of SWI-Prolog You can find Prolog icon in the start menu, or you can double click the Prolog icon on the desktop. This will open you the SWI Prolog environment.

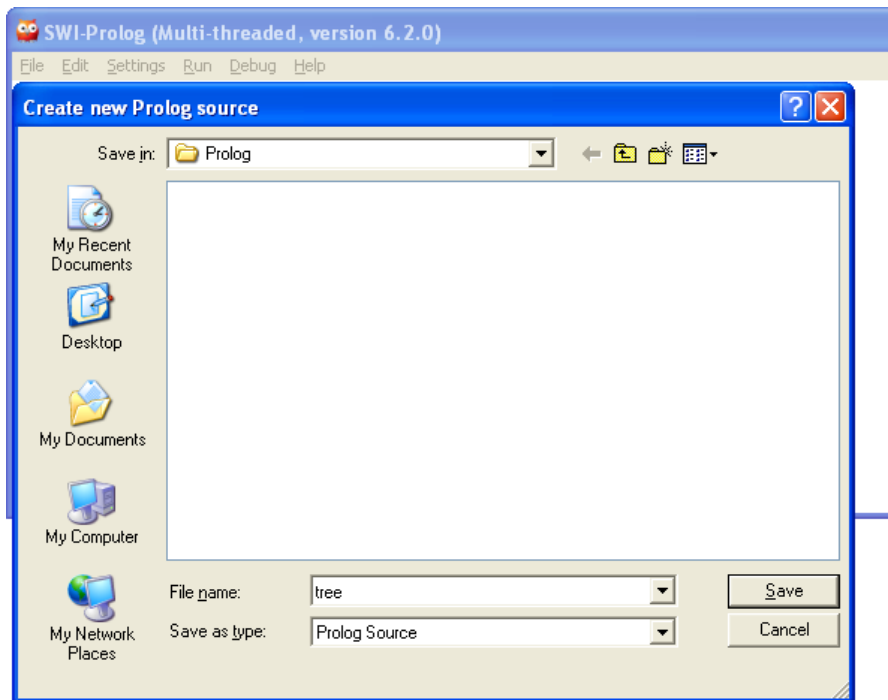
- Your first program in SWI-prolog

Any Prolog program in SWI-Prolog is written in a file with extension .pl. You can write your own one by following these steps:

- After opening SWI Prolog environment, choose **file -> new** to create a new .pl file.



- This will open a new window to create the new file, choose any name for your programs (*here we name it tree*) then choose to save it.



- Now the .pl file we have just created will be opened, and we can write our own program. Let's write the following facts about parent, male and female relationships:

```
parent(pam,bob).
parent(tom,bob).
parent(tom,liz).
parent(bob,ann).
parent(bob,pat).
parent(pat,jim).
female(pam).
female(liz).
female(pat).
female(ann).
male(tom).
male(bob).
male(jim).
```

```

tree.pl [modified]
File Edit Browse Compile Prolog Pce Help
tree.pl [modified]
parent(pam, bob).
parent(tom, bob).
parent(tom, liz).
parent(bob, ann).
parent(bob, pat).
parent(pat, jim).
female(pam).
female(liz).
female(pat).
female(ann).
male(tom).
male(bob).
male(jim).
▲
Colourising buffer ... done, 0.00 seconds, 13 fragments
Line: 14

```

- Compile your program. **Compile -> Make**

```

tree.pl [modified]
File Edit Browse Compile Prolog Pce Help
tree.pl [modified]
parent(pam, bob).
parent(tom, bob).
parent(tom, liz).
parent(bob, ann).

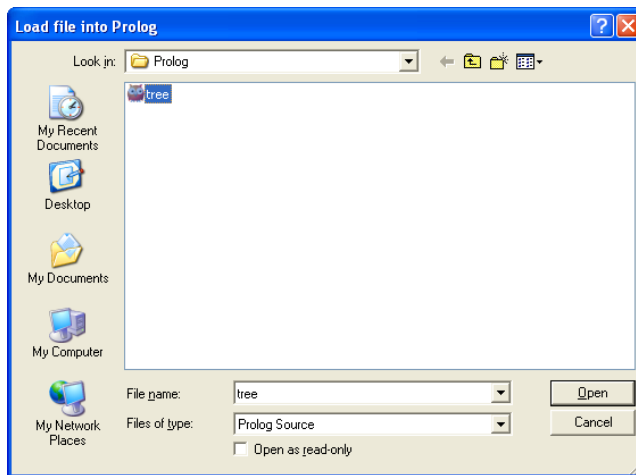
```

- In SWI Prolog environment, load your program by file -> consult. Then choose your program.

```

SWI-Prolog (Multi-threaded, version 6.2.0)
File Edit Settings Run Debug Help
Consult ...
Edit ...
New ...
Reload modified files
Navigator ...
Exit
u) compiled into win_menu 0.02 sec, 29 clauses
olog (Multi-threaded, 32 bits, Version 6.2.0)
©-2012 University of Amsterdam, VU Amsterdam
with ABSOLUTELY NO WARRANTY. This is free software,
me to redistribute it under certain conditions.
://www.swi-prolog.org for details.
help(Topic). or ?- apropos(Word).
for library c:/program files/swipl/library/
% c:/Documents and Settings/User/My Documents/Prolog/tree.pl compiled 0.02 sec, 14 c
lauses

```



- Make a query in your program

After loading your program file into SWI-Prolog, you can make any query/question you want. Let's try to ask the following questions:

- *Is bob a parent of pat?*
- *Who is Liz's parent?*
- *Who is grandparent of Jim?*
- *Do ann and pat have a common parents?*

```

SWI-Prolog (Multi-threaded, version 6.2.0)
File Edit Settings Run Debug Help
% library(win#menu) compiled into win#menu 0.00 sec, 29 clauses
Welcome to SWI-Prolog (Multi-threaded, 32 bits, Version 6.2.0)
Copyright (c) 1990-2012 University of Amsterdam, VU Amsterdam
SWI-Prolog comes with ABSOLUTELY NO WARRANTY. This is free software,
and you are welcome to redistribute it under certain conditions.
Please visit http://www.swi-prolog.org for details.

For help, use ?- help(Topic). or ?- apropos(Word).

1 ?-
% c:/Documents and Settings/User/My Documents/Prolog/tree.pl compiled 0.0
1 ?- parent(bob,pat).
true.

2 ?- parent(X,liz).
X = tom.

3 ?- parent(Y,jim),parent(X,Y).
Y = pat,
X = bob.

4 ?- parent(X,ann),parent(X,pat).
X = bob.

```

Find more here: <http://www.swi-prolog.org>