INF 1771 – Inteligência Artificial

Aula 11 – Utilizando o SWI-Prolog em C++

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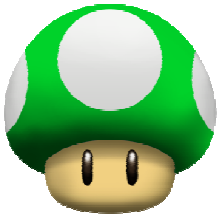
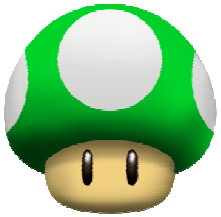


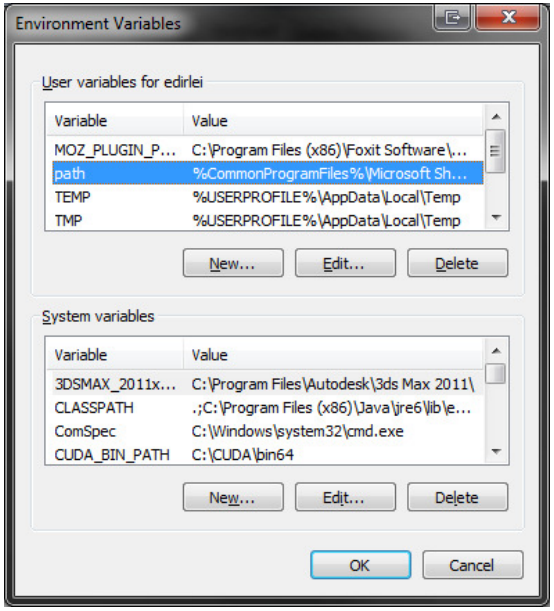
SWI-Prolog

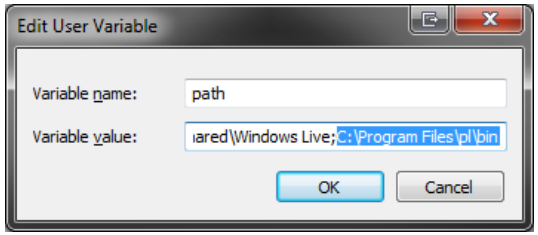
- http://www.swi-prolog.org/download/stable

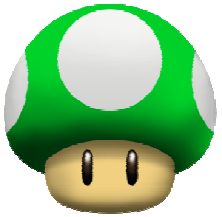


Configuração

- Control Panel -> System ->Advanced-> Environment Variables
- Adicionar o diretório “C:\Program Files\pl\bin” a variável “PATH” do sistema.

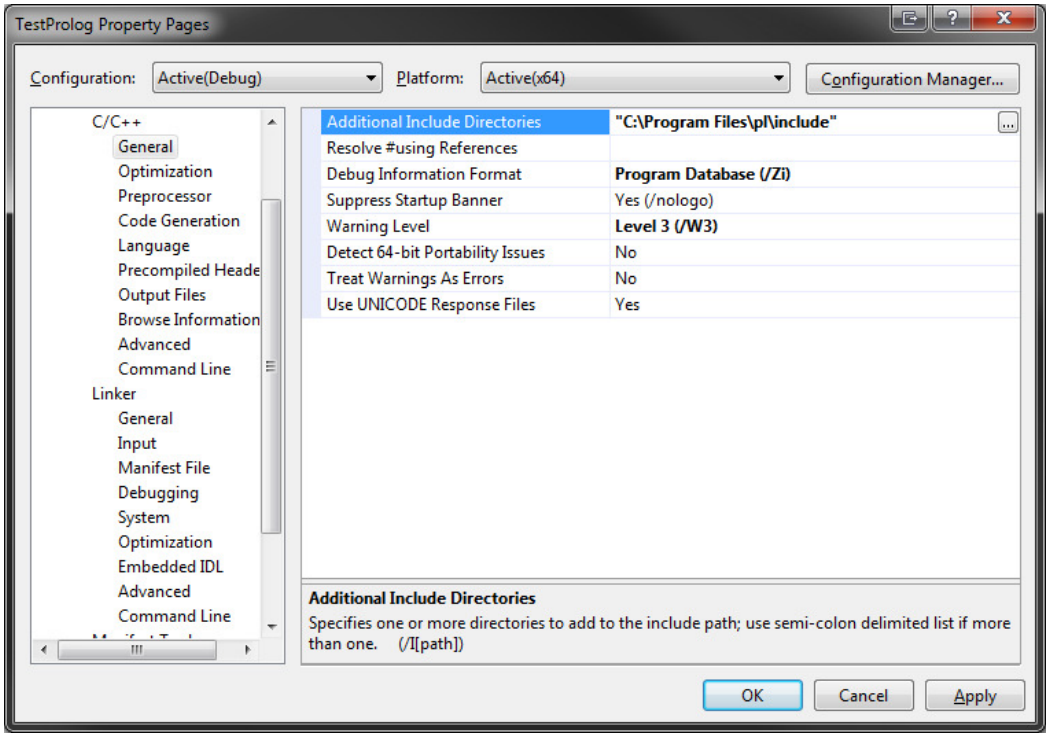


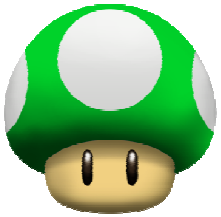




Configuração – Visual Studio

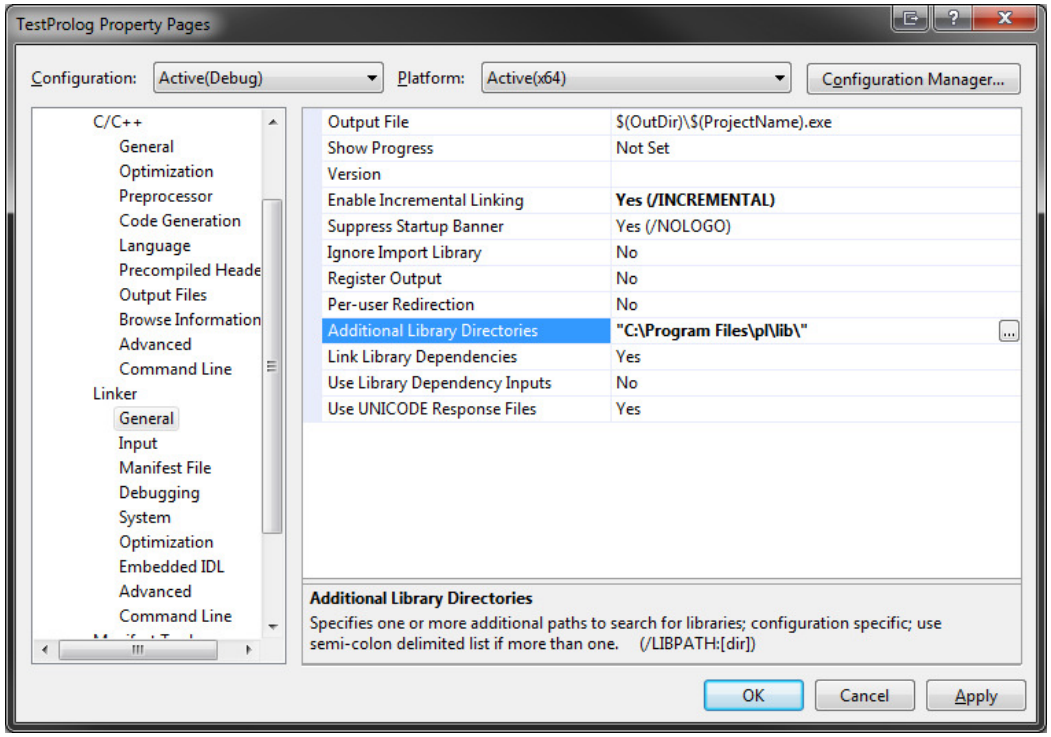
- Include Directory: “C:\Program Files\pl\include”

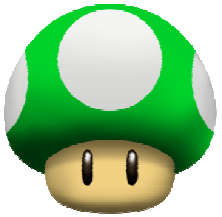




Configuração – Visual Studio

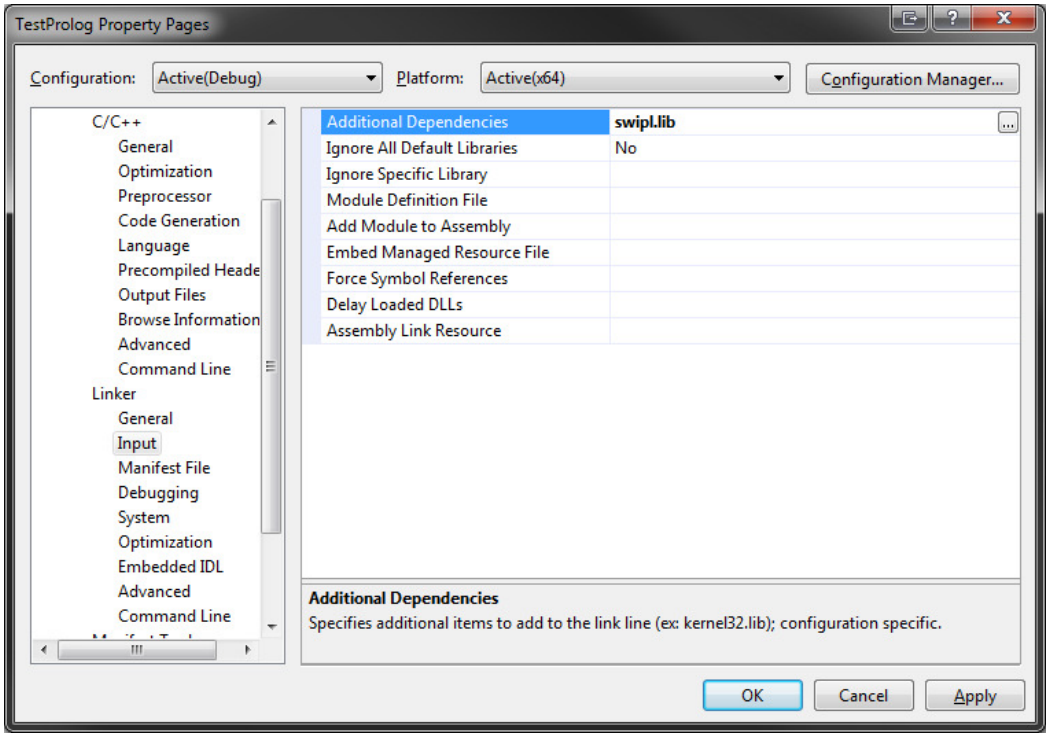
- Library Directory: “C:\Program Files\pl\lib\”

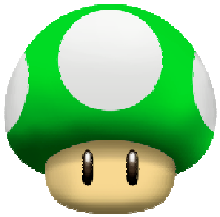




Configuração – Visual Studio

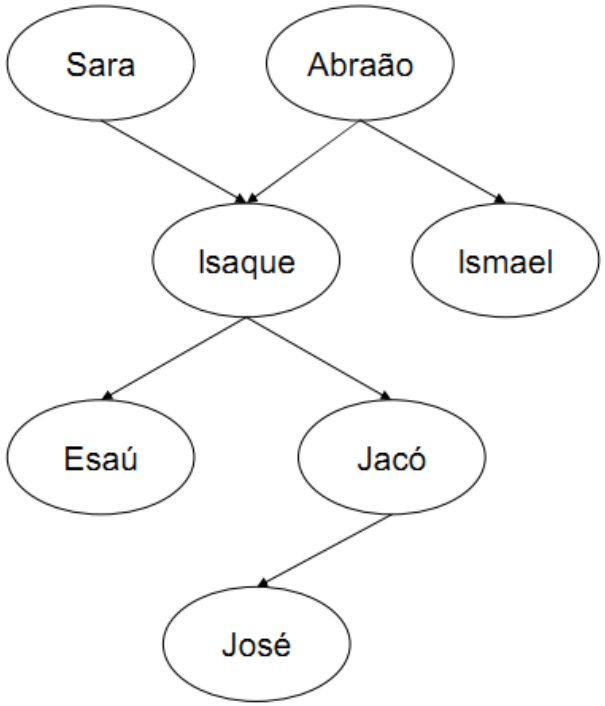
- Dependência: swipl.lib

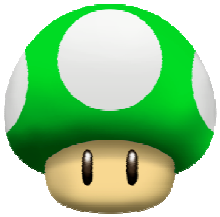




Exemplo de Programa

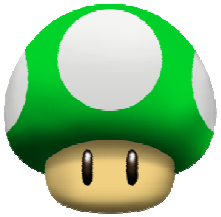
```
progenitor(sara,isaque).
progenitor(abraao,isaque).
progenitor(abraao,ismael).
progenitor(isaque,esau).
progenitor(isaque,jaco).
progenitor(jaco,jose).

mulher(sara).
homem(abraao).
homem(isaque).
homem(ismael).
homem(esau).
homem(jaco).
homem(jose).

filho(Y,X) :- progenitor(X,Y).
mae(X,Y) :- progenitor(X,Y), mulher(X).
avo(X,Z) :- progenitor(X,Y), progenitor(Y,Z).
irmao(X,Y) :- progenitor(Z,X), progenitor(Z,Y).
ancestral(X,Z) :- progenitor(X,Z).
ancestral(X,Z) :- progenitor(X,Y), ancestral(Y,Z).
```





Exemplo de Programa

```
#include <SWI-cpp.h>
#include <iostream>

using namespace std;

int main(){
     char* argv[] = {"swipl.dll", "-s", "D:\\teste.pl", NULL};

     PlEngine e(3,argv);

     PlTermv av(2);
     av[1] =  PlCompound("jose");

     PlQuery q("ancestral", av);

     while (q.next_solution())
     {
             cout << (char*)av[0] << endl;
     }

     cin.get();
     return 1;
}
```



Manual

- http://www.swi-prolog.org/pldoc/index.html