Strawberry prolog като COM клиент

- Жизнен цикъл на COM сървъра
  - X is server("COM_ID")
  - Y = X
  - close(X) %незадължително

- Комуникация от клиента към сървъра
  - Извикване на метод

    Res is X.'MethodName'(Arg1, … ,ArgN)

  - Попълване на свойство

    X.'PropName' := Arg

  - Прочитане на свойство

    Res is X.'PropName'

- Комуникация от сървъра към клиента
  - X is server2("COM_ID", on_event).
  - on_event::M(|L) :-

    write("on event: "),write(M(L)),nl, G_Return:=1.

- Работа с оле сървъри
  - embed_server(…, obj).

Strawberry prolog като COM сървър

- Архитектура
  - Единствен обект:

    ?- X is server("Strawberry.Server.1").
  - При създаването му винаги се стартира нов процес
  - При последното му освобождаване се затваря процеса

- Управление
  - Създава се екземпляр на Server
  - program - пълното име на пролог програмата
  - compile - подготвя се за изпълнение
  - predicate и arguments - задават цел и аргумент
  - call - Предава се управлението на пролог ядрото
  - result - стойността на глобалната променлива G_Return.

- Събития
  - R is raise_event(a,b,c).

Strawberry Prolog като COM клиент

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Module:       hello_word.pro
% Author:       Plamen Sharapanov
% Date:         24.12.2005
% Description:  this sample demonstrates how to use WordOm from SP
% Notes:        for more information about WordOM, see:
      http://msdn.microsoft.com/library/default.asp?url=/library/en-
us/odc_vsto2005_ta/html/OfficeVSTO2005WordOM.asp
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
?-
    WordApp is server("Word.Application"),
    WordApp.'Visible' := true,
    WordApp.'Caption' :="Strawberry Prolog среща MS WORD",
    ColDoc is WordApp.'Documents',
    ODoc is ColDoc.'Add'(),
    ColPara is ODoc.'Paragraphs',
    OPara is ColPara.'Add'(),
    ORange is OPara.'Range',
    ORange.'InsertBefore'("Здравей, свят!"),
    message("","press any key when ready",!),
    ODoc.'Close'(0),
    WordApp.'Quit'().


%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Module:       merlin.pro
% Author:       Plamen Sharapanov
% Date:         24.12.2005
% this sample demonstrates how to use Msagent from SP
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
?-
      StrAgentName is "Merlin",
      StrAgentPath is windows_path + "\\Msagent\\Chars\\" + StrAgentName +
".acs",
      ObjAgent is server2("Agent.Control.2",on_event),
      ObjAgent.'Connected' := 1,
      ColCharacters is ObjAgent.'Characters',
      ColCharacters.'Load'( StrAgentName, StrAgentPath),
      G_ObjCharacter is ColCharacters.'Character'(StrAgentName),
      G_ObjCharacter.'Show'(),
      message("","press any key when ready",!),
      G_ObjCharacter.'Hide'(),
      repeat,
      wait(0.3),
      IsVisible := G_ObjCharacter.'Visible',
      IsVisible = false,
      close(ObjAgent).

%on_event::M(|L):-  write("on event: "),write(M(L)), nl.
on_event::M(|L):- process(M).

process('DblClick') :-G_ObjCharacter.'Play'("Pleased").
process('Move') :-G_ObjCharacter.'Play'("Sad").
```

Пример за Клиент - Сървър

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Module:       server.pro
% Author:       Plamen Sharapanov
% Date:         24.12.2005
% this sample demonstrates how to use StrawberryProlog as COM server
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
?-    G_Return := "тест test", write(G_Return),nl,
      enc(G_Return), write(G_Return),nl.

% prolog program
enc(Src):- G_Return := cyr_to_lat(Src).



%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% Module:       client.pro
% Author:       Plamen Sharapanov
% Date:         24.12.2005
% this sample demonstrates how to use StrawberryProlog as COM client
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
?-
      Str is "Strawberry Prolog извиква Strawberry Prolog",
      X is server("Strawberry.Server.1"),
      X.program := get_current_directory() + "\\server.pro",
      X.compile(),
      X.predicate := "enc",
      X.arguments := "\""+Str+"\"",
      X.call(),
      Result is X.result,
      write("Транслитерацията на\n\t"+Str+"\ne\n\t" + Result),nl.



/*****************************************************************
% Module:       client.js
% Author:       Plamen Sharapanov
% Date:         24.12.2005
% this sample demonstrates how to use SP as COM server from JScript
*****************************************************************/
var Str = "JScript извиква програма на пролог"
var X = WScript.CreateObject("Strawberry.Server.1");
X.program = "D:/Program Files/Strawberry Prolog/examples/server.pro";
X.compile();
X.predicate="enc";
X.arguments="\"" + Str + "\"";
X.call();
var Result = X.result;

WScript.StdOut.WriteLine( "Транслитерацията на\n\t" + Str + "\ne\n\t" +
Result);
WScript.StdIn.ReadLine();
```