Link to an external DSL C/C++ function

digexfun - Interface

PowerFactory
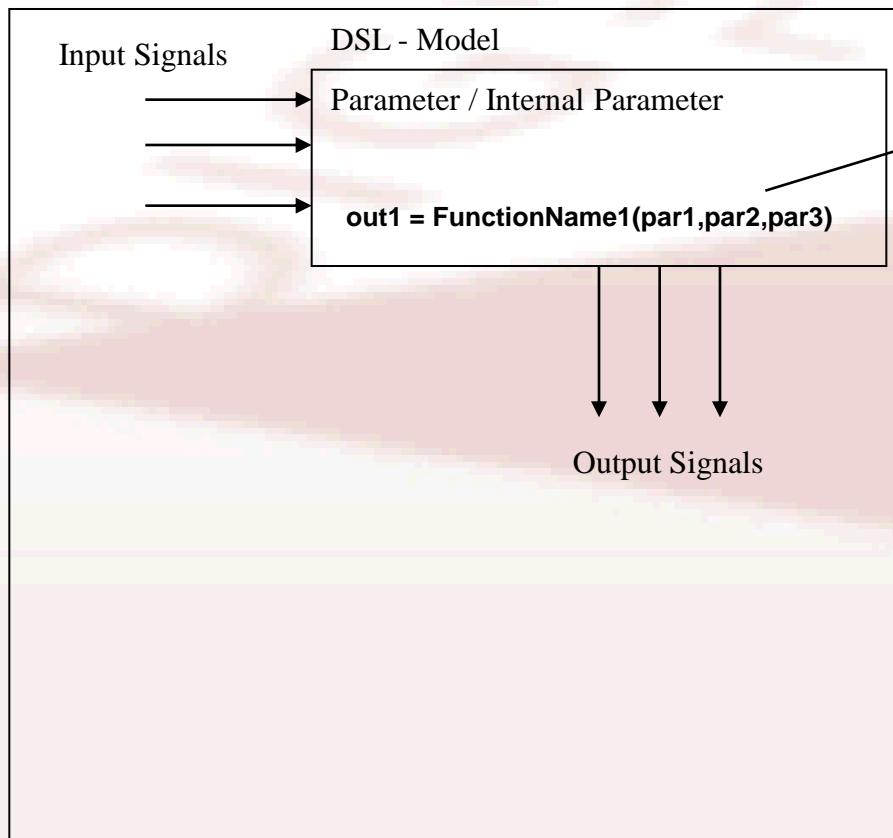
digexfun_*.dll

Input Signals

DSL - Model

Parameter / Internal Parameter

out1 = FunctionName1(par1,par2,par3)

Output Signals

void __stdcall FunctionName1(void)
void __stdcall FunctionName2(void)
void __stdcall FunctionName3(void)
void __stdcall FunctionName4(void)

SILENT
DIG

C / C++ Interface

Function must be registered in userfun.cpp:

```
int __stdcall RegisterFunctions(int ifun, char* cnam, int* iVersion)
    if (ifun == 0) {
        strcpy(cnam,"myselect");
        *iargc = 3;
    } else if (ifun == 1) {                 // function index
        strcpy(cnam,"FunctionName1");       // new function name
        *iargc = 3;                         // number of arguments
    }
```

Function Prototype:

```
void __stdcall FunctionName1(void)
```

Returning a value:

call push(value1) at the end of the function

Access to the function arguments => use pop()

C-Interface -> Controller DLL

PowerFactory

digexfun.dll

Controller (DLL) (e.g. from Matlab …)

DSL function

C-function calls

call of one or more functions

result
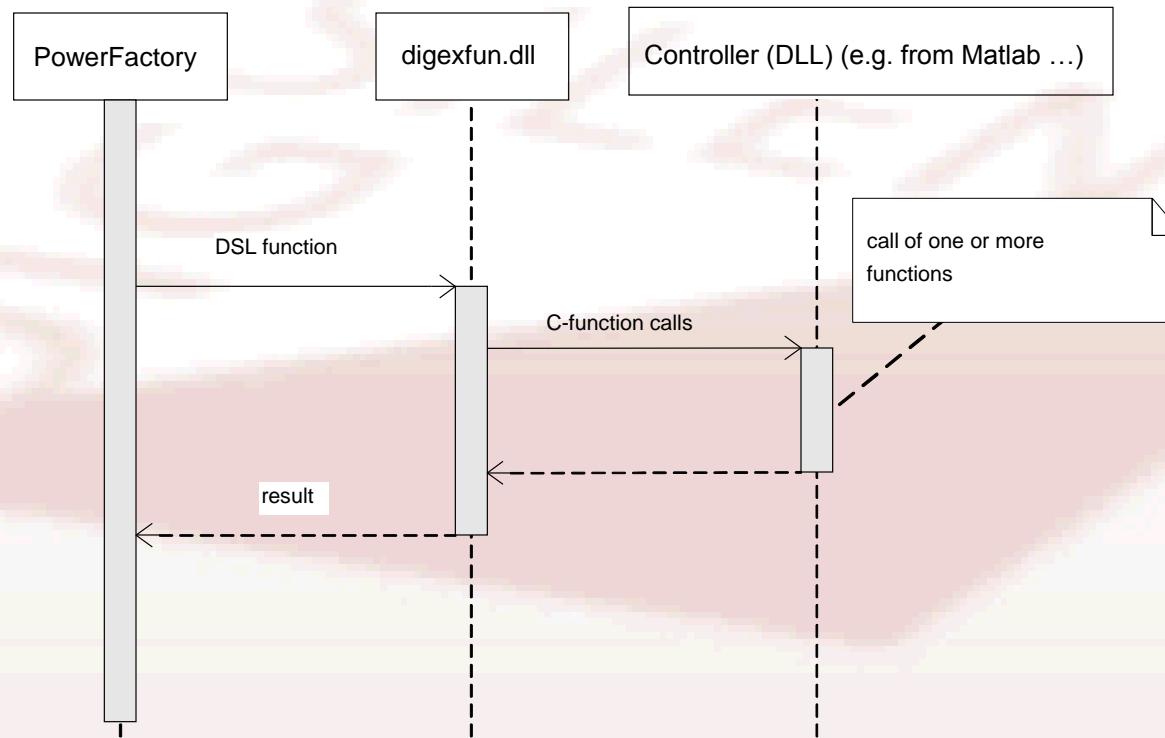
Visual Studio Settings

■ Microsoft Visual Studio 6.0, 2005, 2008 or Express Edition

◆ For debugging => Command: digkernel.exe, Arguments /edlogon /pfcall:
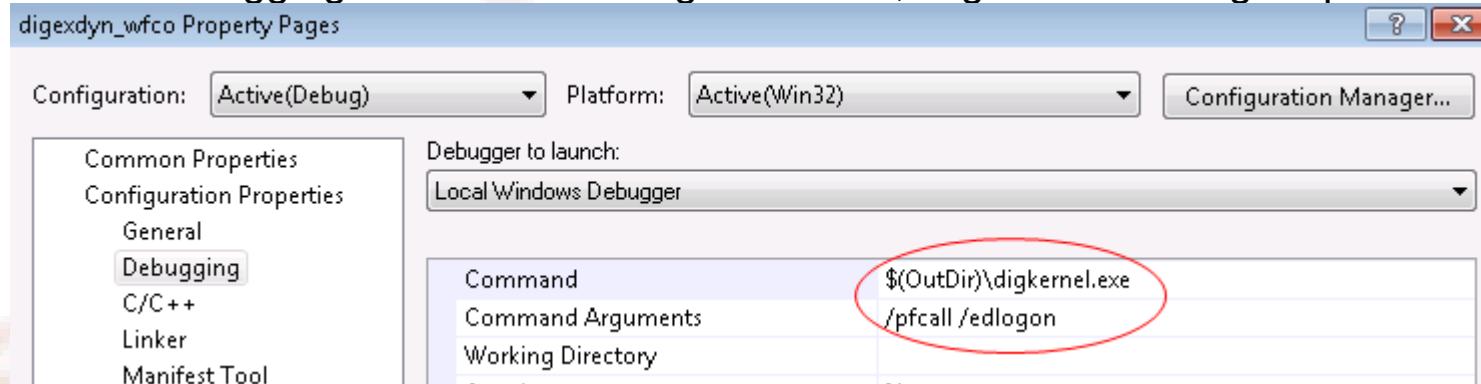
◆ Linker Settings
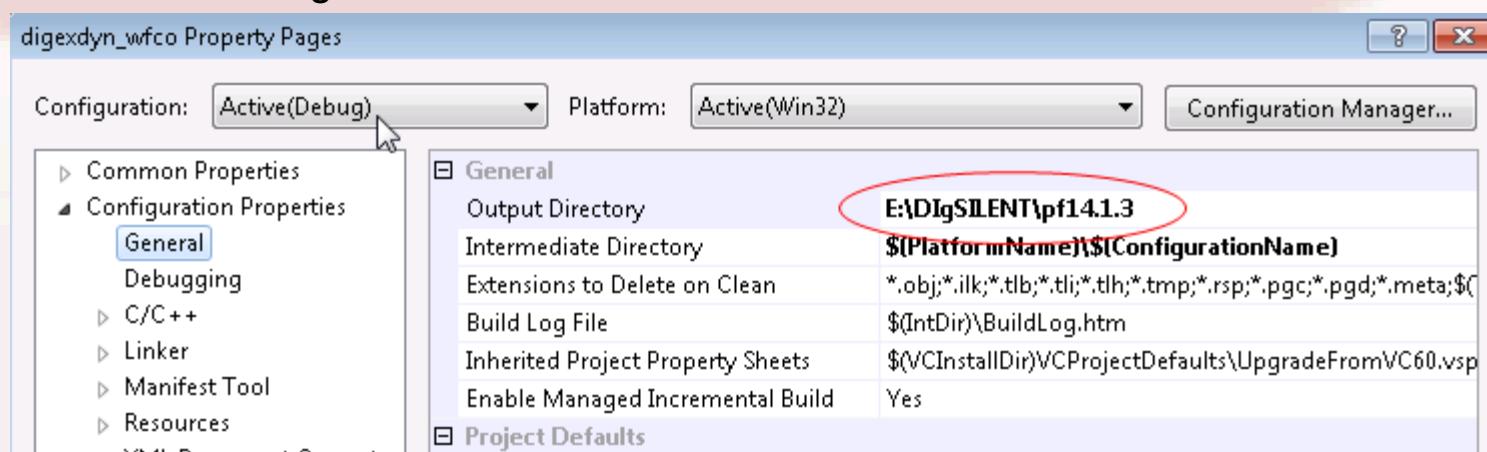
digexfun external functions

- `RegisterFunctions(int ifun, char* cnam, int* iVersion) :`
  To register the external c function (called from PowerFactory)

- *`get_wrk_path():`*
  To get the PowerFactory installation directory e.g. „e:\DIgSILENT\PF14.1"

- *`emitMessage(const char *msg):`*
  To print a message into the PowerFactory Output Window