Here is the basic form of a program that uses XLISP.DLL;

#include "xlisp.h"

/\* main - the main routine \*/

void main(int argc,char \*argv[])

{

xlCallbacks \*callbacks;

/\* get the default callback structure \*/

callbacks = xlDefaultCallbacks(argc,argv);

/\* initialize xlisp \*/

xlInit(callbacks,argc,argv,NULL);

/\* add your functions here \*/

/\* display the banner \*/

xlInfo("%s\n",xlBanner());

/\* load the initialization file \*/

xlLoadFile("xlisp.ini");

/\* call the read/eval/print loop \*/

xlCallFunctionByName(NULL,0,"\*TOPLEVEL\*",0);

}

External functions should be declared as functions taking no

arguments and returning an xlValue which is the result. Arguments

should be fetched by using the routines below.

For functions that take optional arguments, call the predicate

xlMoreArgsP() to determine if more arguments are present before

calling the argument fetching function.

When you have fetched all of the arguments, call xlLastArg()

to detect calls with too many arguments.

Your new function should have the following form:

xlValue myadd(void)

{

xlFIXTYPE a,b;

xlVal = xlGetArgFixnum(); a = xlGetFixnum(xlVal);

xlVal = xlGetArgFixnum(); b = xlGetFixnum(xlVal);

xlLastArg();

return xlMakeFixnum(a + b);

}

After writing your function, add it to xlisp by using the xlSubr()

function:

xlSubr("myadd",myadd);

Argument list parsing macros:

xlGetArg()

xlLastArg()

xlMoreArgsP()

Macros to get arguments of a particular type:

xlGetArgCons()

xlGetArgList()

xlGetArgSymbol()

xlGetArgString()

xlGetArgFixnum()

xlGetArgNumber()

xlGetArgChar()

xlGetArgVector()

xlGetArgPort()

xlGetArgInputPort()

xlGetArgOutputPort()

xlGetArgUnnamedStream()

xlGetArgClosure()

xlGetArgEnv()

All of the argument fetching functions return their result as an

xlValue. If you want to get the fixnum or flonum in a form that C can

understand, use the following macros. To return a fixnum result, use

the function xlMakeFixnum() passing it a C long. To return a flonum

result, use the function xlMakeFlonum() passing it a C double.

Types:

xlFIXTYPE

xlFLOTYPE

Fixnum/flonum/character access macros:

xlGetFixnum(x)

xlGetFlonum(x)

xlGetChCode(x)