

Hello all

I will ask you the question with an example based in OfficeAutomation:

There is an API of functions to handle spreadsheets. As they can be handled using OpenOffice, LibreOffice, Excel or other programs, the same API can be set for all programs. In run time it is possible to choose which program to use.

To do it, I have prepared something similar to the enclosed code. However, I think it is ugly and something much better could be done in U++ using C++.

Do you have any idea?

```
#include <Core/Core.h>
```

```
using namespace Upp;
```

```
class SpreadsheetPlugin {  
public:  
    virtual bool Open(char *filename)    {return false;};  
    virtual bool SetData(int row, int col, Value val) {return false;};  
};
```

```
class OpenSpreadsheet : public SpreadsheetPlugin {  
    virtual bool Open(char *filename);  
    virtual bool SetData(int row, int col, Value val);  
};
```

```
bool OpenSpreadsheet::Open(char *filename) {  
    // Do stuff  
}
```

```
bool OpenSpreadsheet::SetData(int row, int col, Value val) {  
    // Do stuff  
}
```

```
class ExcelSpreadsheet : public SpreadsheetPlugin {  
    virtual bool Open(char *filename);  
    virtual bool SetData(int row, int col, Value val);  
};
```

```
bool ExcelSpreadsheet::Open(char *filename) {
```

```
// Do stuff
}
```

```
bool ExcelSpreadsheet::SetData(int row, int col, Value val) {
    // Do stuff
}
```

```
class Spreadsheet : public SpreadsheetPlugin {
private:
    SpreadsheetPlugin *data;
```

```
public:
    Spreadsheet() {data = 0;};
    ~Spreadsheet() {
        if (data)
            delete data;
    }
    void Init(String type) {
        if (type == "Open" || type == "Libre")
            data = new OpenSpreadsheet();
        else
            data = new ExcelSpreadsheet();
    }
```

```
virtual bool Open(char *filename) {return data->Open(filename);}
virtual bool SetData(int row, int col, Value val) {return data->SetData(row, col, val);}
};
```

```
CONSOLE_APP_MAIN
{
    Spreadsheet spreadsheet;

    spreadsheet.Init("Libre");
    spreadsheet.Open("c:\\myfile.xls");
    spreadsheet.SetData(4, 6, "Hello world");
}
```
