Documentation : Arcade project

Summary:

1/ How to use this program?

This program consist to link a core with two libraries (a graphical library and a game library) by using this sentence: ./arcade “Path_To_Your_Graphical_Library”
After that, you’ll be able to choose your game and switch graphical library. During your game, you’re able to switch graphical and game library.
The Nibbler:

Move with ZQSD
Escape to quit
Eat all the little ball you see on the screen to do the best score, care of the wall and your tail if you want to survive

The PacMan:
Move with ZQSD
Escape to quit
Eat all the little ball but be carefull of the ghost if you want to eat them all !

Use the key F2 Previous Lib & F3 Next Lib
Use the key F4 Previous Game & F5 Next Game

2/ Library used

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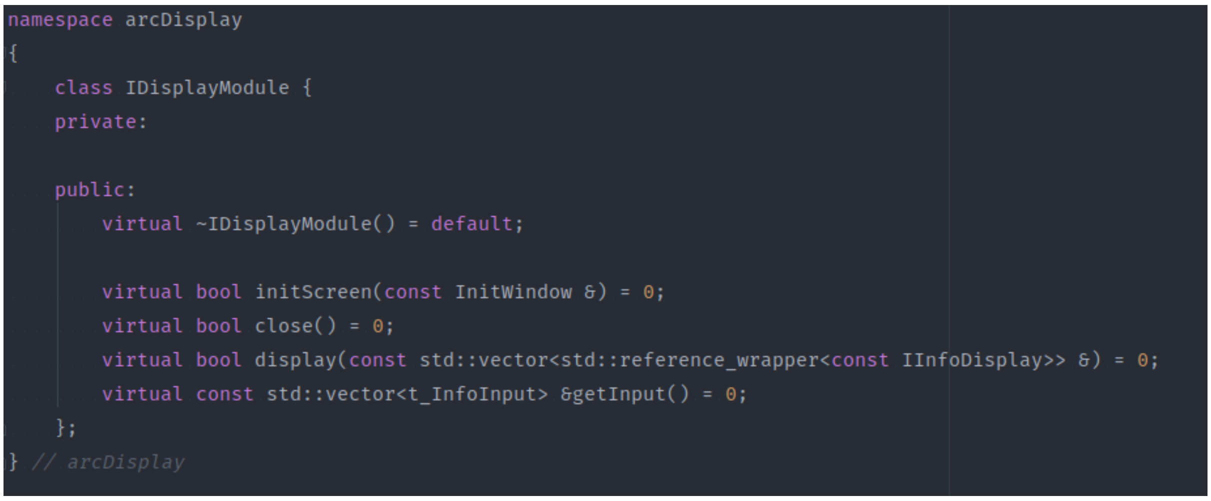
3/ How to implement a graphical library?

To implement a new graphical library, you have to create four mandatory methods following this interface :

- initScreen: Initlialize your screen from the initWindow data and returning a boolean if this one success or not
- close: close your window and returning a boolean if this one success or not
- display: display all objects (IInfoDisplay) from the core that we provided. Returning a boolean if the window has been closed
- getInput: returning all inputs pressed by the user.

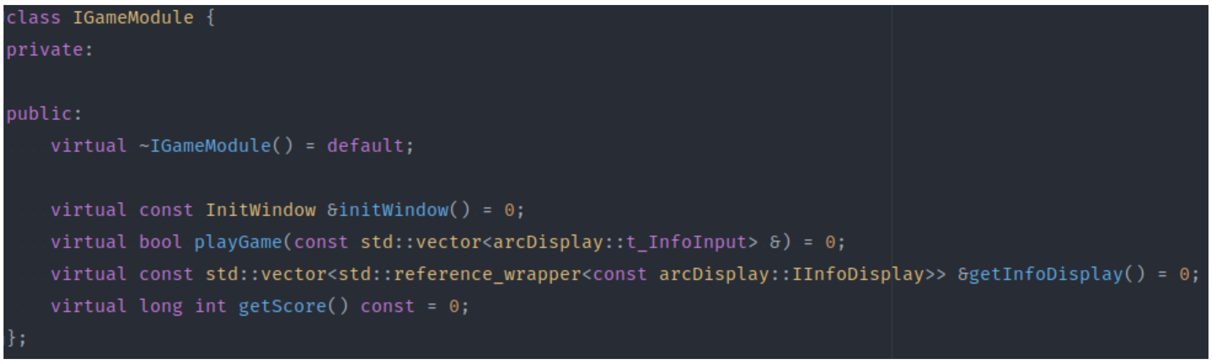


```cpp
namespace arcDisplay
{
    class IDisplayModule {
    private:

    public:
        virtual ~IDisplayModule() = default;

        virtual bool initScreen(const InitWindow &) = 0;
        virtual bool close() = 0;
        virtual bool display(const std::vector<std::reference_wrapper<const IInfoDisplay>> &) = 0;
        virtual const std::vector<t_InfoInput> &getInput() = 0;
    };
} // arcDisplay
```

3/ How to implement a game library?

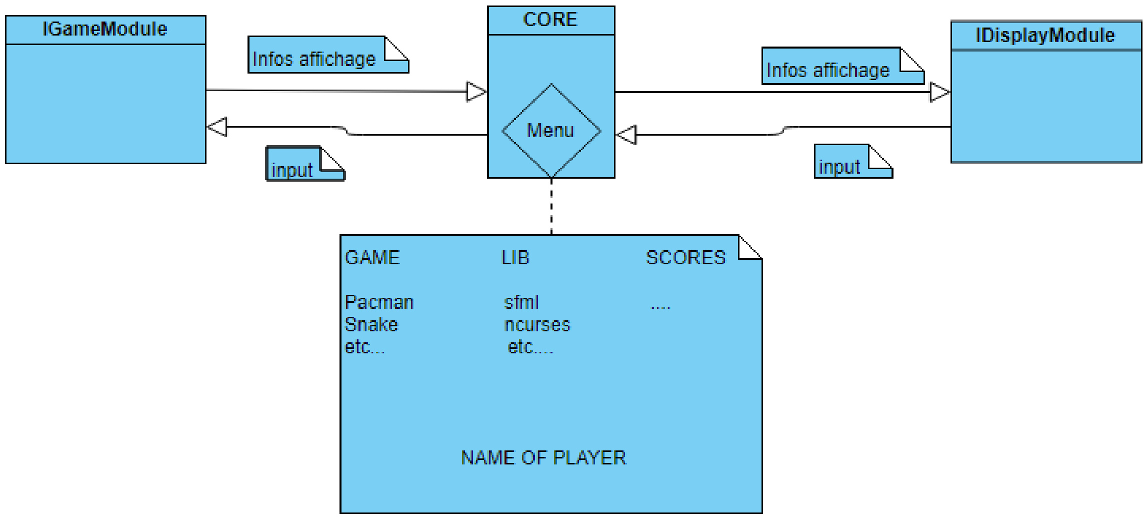
To implement a new game library, you have to create 4 mandatory methods following this interface :

- InitWindow: send every necessary informations inside a InitWindow class to initialize the window in your graphical lib
- playGame: manage all actions and inputs according to the game
- getInfoDisplay: return all objects to be displayed by the graphic library
- getScore: return the score



```cpp
class IGameModule {
private:

public:
    virtual ~IGameModule() = default;

    virtual const InitWindow &initWindow() = 0;
    virtual bool playGame(const std::vector<arcDisplay::t_InfoInput> &) = 0;
    virtual const std::vector<std::reference_wrapper<const arcDisplay::IInfoDisplay>> &getInfoDisplay() = 0;
    virtual long int getScore() const = 0;
};
```

4/ Class diagram


IGameModule
Infos affichage
input
CORE
Menu
Infos affichage
input
IDisplayModule
GAME
LIB
SCORES
Pacman
Snake
etc...
sfml
ncurses
etc....
....
NAME OF PLAYER