DESIGN DOCUMENT

AUTOCLICKER

Native vs Framework study

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# 1.0 INTRODUCTION

This document is intended to be a design guideline that describes how an auto clicker application created for a native vs. framework comparison study should be assembled. Here you will find important aspects such as planned features, UI/UX, behavior, etc.

# 2.0 WHAT IS AN “AUTO CLICKER”?

Auto clicker is a kind of software from the "automation" category that helps a user to automatically fire multiple clicks in a short period of time, in a way that the human hand can't perform.

# 3.0 WHY AN “AUTO CLICKER”?

There are several reasons why the application running the study is an auto clicker. I can list a few of them:

* From a technical aspect and with a superficial purpose, building such an application even using Win32 API with C++ is ok (based on my experience level).
* Mouse manipulation over windows requires the use of some specific system calls that need to be part of this research. Reason? System calls are an important aspect of how the operating system works and most part of programmers do not even know about them. The use of this kind of resource will be an important part of the final publication.
* I have nostalgic memories of this kind of software since my childhood. I remember playing games like MU Online or WYD and an auto clicker was a useful tool to add points to my characters.

# 4.0 UI/UX

The design prototypes of this application were created using the Visual Studio Design Viewer. The reason for this is the fact that the final application will follow the same style guidelines provided by Windows GUI (Graphical User Interface).

|  |  |
| --- | --- |
| Interface gráfica do usuário  Descrição gerada automaticamente |  |
| Image 1 – Main Window | Image 2 – About Window |

The main window is where the user can configure and activate the main function of this application. The "Button" control should identify which mouse button will be triggered by the Auto-Clicker main function. The "Interval" control should define the delay between clicks. The "STOP" and "START" buttons should control the main function of the Auto-Clicker and will never be activated together. Both control buttons can be triggered using keyboard shortcuts: “F9” to start and “F10” to stop.

The about dialog is just to keep track relevant information about that project, giving information such as name, version, author and the GITHUB repository link related to this research.

# 5.0 Software Architecture

Following we have a simple architecture diagram that reflets how this application should be followed in both programming projects:

Interface gráfica do usuário, Diagrama

Descrição gerada automaticamente

Image 3 – Architecture blueprint of the auto clicker application

As we can see, this is a very simple MVC (Model-View-Control) architectural style. This approach is sufficient for what this research proposes. "View Layer" represent elements related with the visual part of the application, in other words, the GUI (Graphical User Interface). "Control Layer" represent elements related with the way the application works, such as: Maintaining the application state, validating the configuration inputs, defining and controlling the necessary threads for the application work, and more. "Model Layer" is just a category where each single file should define data structure used in the whole application.