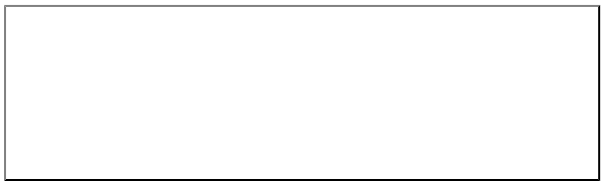
2 - Architecture

2.1 - Introduction

Automation Test Framework's architecture was devised strongly

code, Code Editors are expected to be the right choice for Automation Test Framework as well, so users can define and implement tests with them.

Views are tipically used to navigate resources and modify properties of a resource. Any changes made within a view are saved immediately. By contrast, editors are used to view or modify a specific resource and follow the common open-save-close model [9].



other plug-ins declare extensions to that extension point, implementing the appropriate

```
    display(address)
```
Procedure 1-D - Displaying in the screen information about an user previously registered in another test

2.3.5 - Using property files

Automation Test Framework will also provide a way to ease the creation of small variations

There are other types of assertions that do not depend on image recognition. For example, in a test for a web-based application, the user can expect as the result of their test a web page containing predefined success or error codes. Instead of relying on the user interface for this verification, the user can check directly the returned code.

```
type("John Doe")
type(keys.TAB)
type("Eclipse street, #42")
click(ConfirmButton.jpg)
assert(success_code)
```

Procedure 1-G - Checking return codes

However, GEL provides a possibility of treatment when a test does not present the expected result. For instance, if in the

as

3 - Technical Approaches

3.1 - The GEL Language

3.1.1 - Description

With the purpose of defining the test cases in Automation Test Framework, we propose a language [4] by which the user will be able to use commands as the steps of the tests.

Being procedures defined as

5 2447.84s5lsjEfamoudETBT[4]BT2969.17 15 2447.84s5lsewdjETBT3149.2417.5 17.8687 ae2s of the(procedurETBT3

procedurETBT485.7783 64735127 h127 Td(as) incBT454.5554 45984127 h127 Td(as)aBT454.5554 68.8562res

as

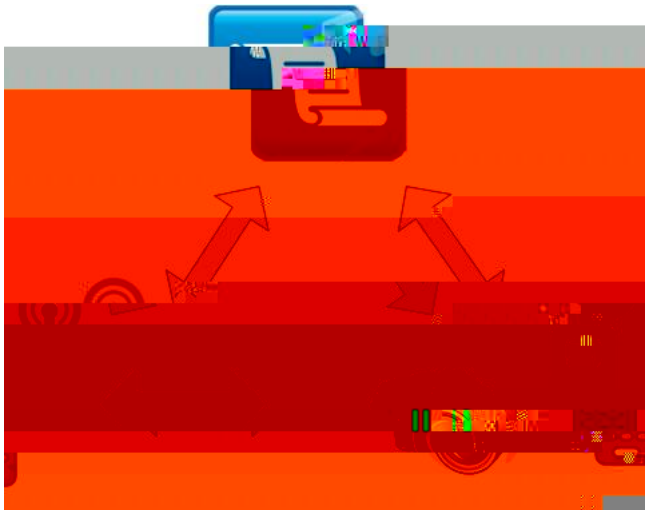
th127 Td(as) TjE4327 Td(of) Tj143127 h127 Td(as)TBT500.03832747.252res

Java Snippet 1 - Procedure 1-C converted to Java

4 - Appendix

4.1 - Showcase

The purpose of this section is to show the potential of this framework by means of cases. Here we list some examples of how Automation Test Framework can be used. With the ability of defining new commands we have the power to represent very different and even highly specific



Some example commands are listed below:

```
takePicture()
click(aPicture.jpg)
display(aPicture.jpg)
```

4.1.3 - GPS

We want to test an application which uses GPS data. A possible Test Definition Mechanism could be a view with a map, and a route in this map would generate a

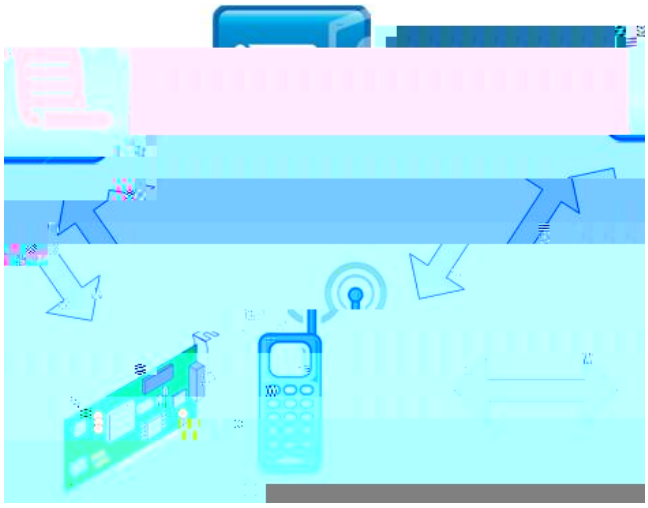
A

beauld

setMode(binary)
put(file)
get(file)

4.1.6 - Circuit Boards

The user can test an application that communicates with a prototype board connected via serial or USB ports, sending and receiving bytes or files.



Some example commands are listed below:

openPort(portNumber)
readData()
writeData(byteArray)
readData()
display(data)