CPI Radiocontrols. Sending cards contents

Introduction

Using the CPI radio control system as a basis, some options will be described for sending the contents of the cards, so that they can be integrated into other programs (OE2010, SiTiming) for the management of intermediate results.

This document is more specifically dedicated to the case of events such as raids or rogaines with SiTiming, for the download of all the content of a card at an intermediate point of the route, so that an accounting of the points visited / achieved can be made, but avoiding having to place the PC that acts as server and manager of the entire competition at that intermediate point.

Definition of the event in CPI

To be able to upload punches in CPI to be able to download them later in OE2010 or SiTiming, the punches have to be associated with an event in CPI:

- http://www.jaruori.es/minlistado.jsp?cLang=es

Click on the "New" button and enter the required data. Be careful, you have to remember well the username and password of the event because it will be necessary a little later.

Reading and sending the punches of a card with Android mobile

When a card is not SIAC, the only way to obtain all its punches is by downloading with a station un read-out mode. This also applies to SIAC cards, although for these there are additional options.

To avoid having to move the PC that manages the event, the entire contents of a card can be downloaded and sent as radio-controlled punches of the CPI system. The Android mobile program of the CPI system, SiPunchTxUsb, performs these 2 actions (downloading + sending)

Therefore, it would be necessary to have an Android mobile (with version 8, Oreo, or higher), a reading station and an Internet connection.

The program can be downloaded from the following location:

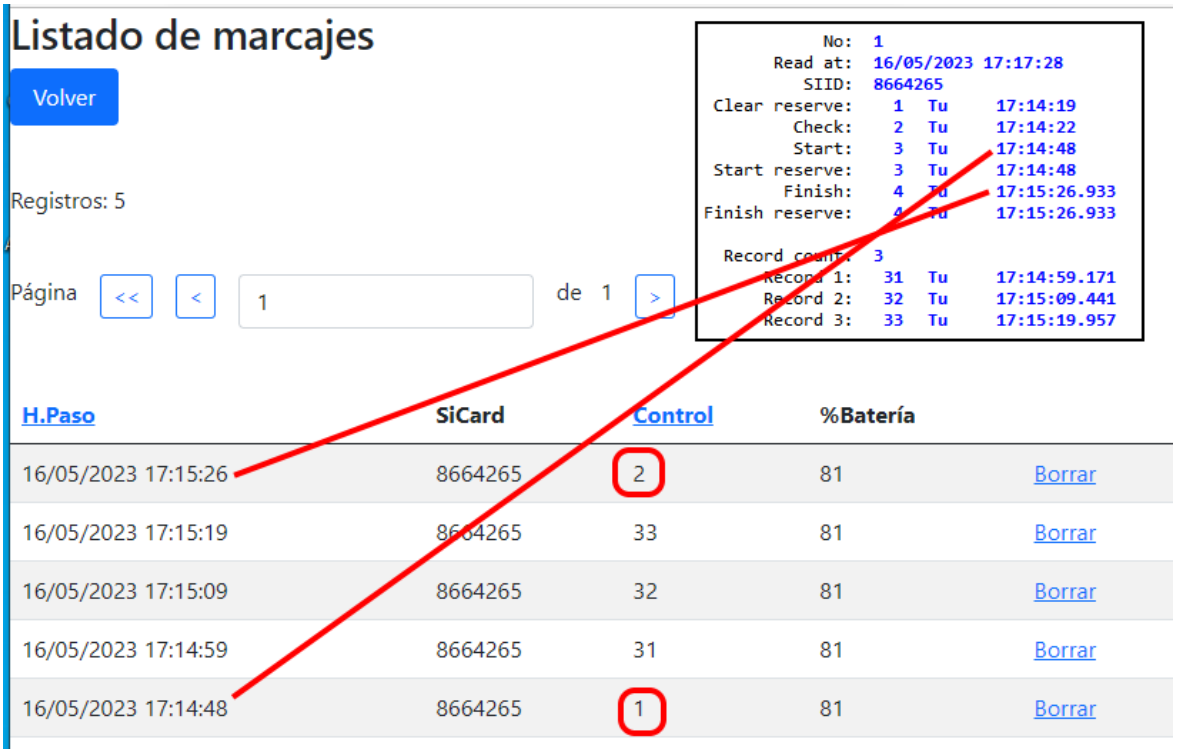
http://www.jaruori.es/cpiminimo/SiPunchTxUsb3.apk

NOTE: this version requires Android 8 (Oreo) or higher. On the same page you can download a version for older models, but it only acts as a radiocontrol sending punches from a normal control, that is, the connection with a read-out station doesn't work.

When the program is launched on the mobile, the read-out station has to be connected via USB and turned on. The program doesn't discover nor turn the read-out station on. In the COM Port menu you have to set the speed at which the station is configured, normally 38400.

The punches are sent to the CPI server, associated with an event, and for this it is necessary to have previously logged in. The mobile program, every time it is started, will try to connect to the last event to which it has been connected.

It is not necessary to have the mobile screen turned on to perform your task. The program makes a continuous beep to indicate that it is working. When it finishes reading a card, it makes a double beep with a higher volume of sound to indicate that it can be extracted.



CPI uses some ficticious control numbers (1, 2) for start and finish, respectively, independently of how they are really configured. It is necessary to take this into account depending on the event management tool that you want to use. For example, to use SiTiming you could set the start and finish stations to those same numbers so that they exactly match the values sent via CPI.

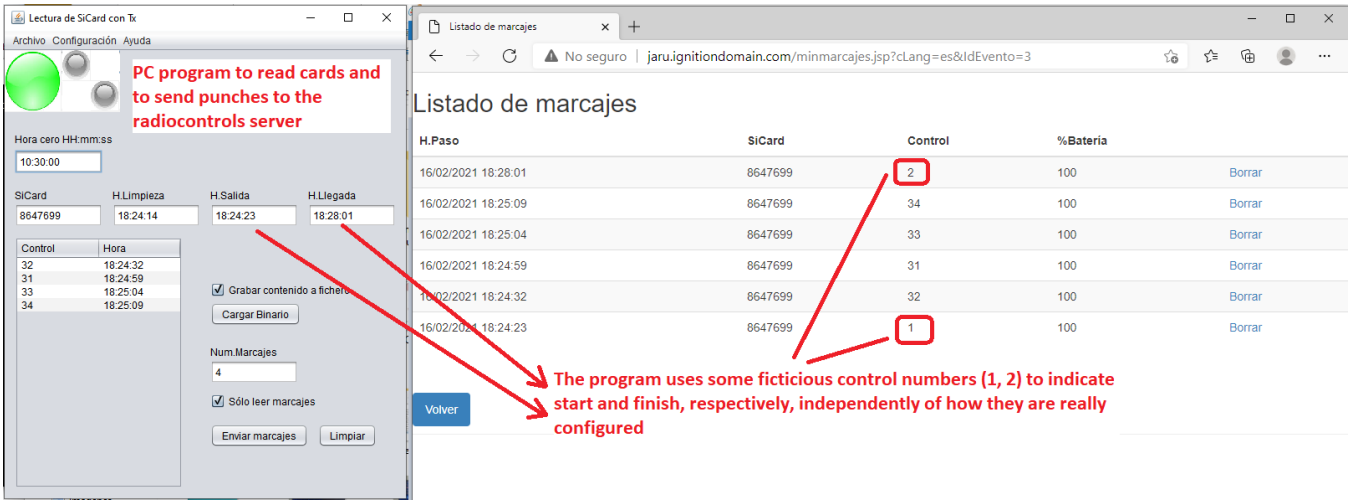
Reading and sending card punches with PC

For this there is a program that runs on PC and that performs these 2 actions (downloading + sending)

Therefore, it would be necessary to have a PC or tablet PC, a read-out station and an Internet connection. The program is written in Java language, so it would be necessary to have the Java runtime environment installed, JRE.

The program can be downloaded from the following location:

https://drive.google.com/file/d/1Fa574jkMrYB-EO6ckM3HdBRkUZJduaOI/view?usp=sharing



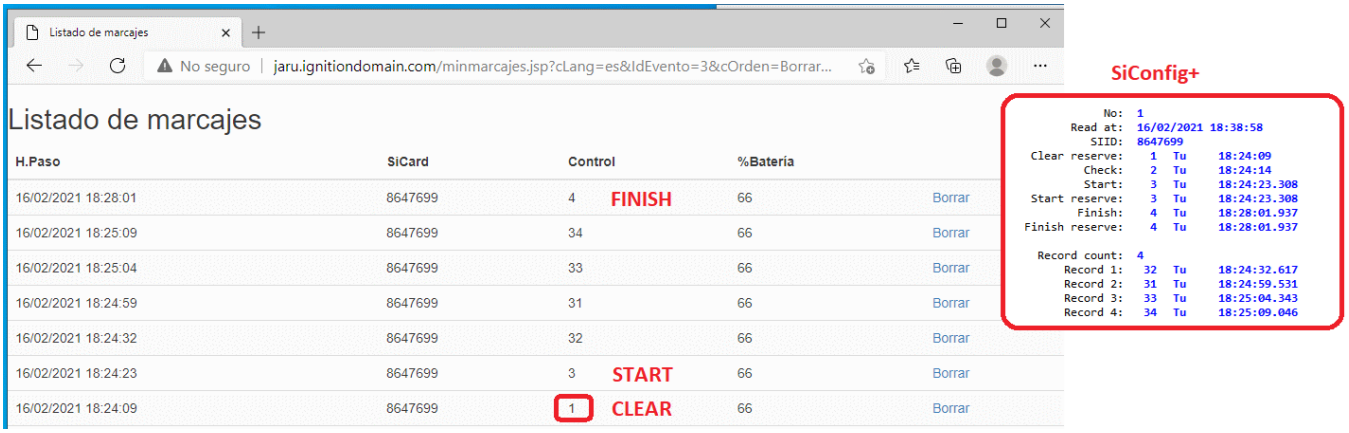
- Unzip the contents of the file to any location on the PC
- Requirement: JRE, Java Runtime Environment
- To execute double-click on "Sportident.jar"
    - If it does not run or if you want to show the Java message console, then double-click on the file "LecturaSiTx_ConConsola.bat"
- Configuration -> Serial Port
    - Write the COM port to which the read-out station is connected
    - Write the speed at which the station is programmed (4800, 38400)
- After changing the port, better to exit the app and run it again
    - If a station is recognized, the circle in the upper left corner changes from red to green
- To send punches to the CPI radiocontrol server, it is necessary to log in an event of that system.
- To log in, Configuration -> Remote Servers -> Tx punches
    - Write "User" and "Password"
    - Push "Log in"
- If everything is Ok, the event data is displayed in the "Event info" field.
- After reading a card, its data is displayed on the screen. They can be transmitted to the CPI server by clicking on the "Send punches" button.

SIAC card through SIAC Radio Readout station

The following sections refer only to SIAC cards. In all cases, the reading of the punches and sending to the CPI server is done through an Android mobile operating as a radiocontrol. Alternatively, the readings could be received on the USB-SRR dongle connected to a PC instead of being sent to the CPI server, for direct processing.

- http://www.jaruori.es/minintro.jsp?cLang=es

One option to read all the punches on a SIAC card, whether active or not, is through a station programmed in the "SIAC Radio Readout" mode. In this mode, the card must be inserted into the hole of the station. At that moment, the station tells the card that it has to transmit all its contents. The radiocontrol collects the punches and transmits them to the CPI server.

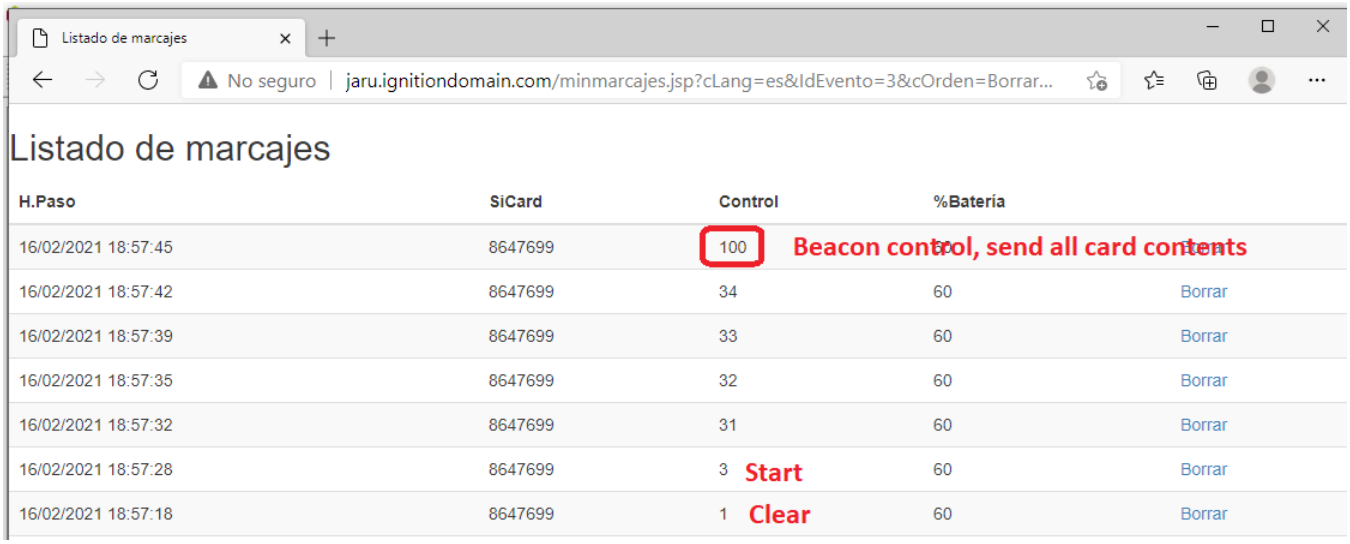


This station is not a control that must be visited as part of the course. It can be handled by a member of the organization who is at a strategic point to carry out this activity.

In this case, the SIAC Radio Readout station sends the station numbers as programmed. In other words, CPI does not alter the definition of the start and finish stations since it is only dedicated to transmitting what the station sends it.

SIAC card through Beacon Control and option “Send All Card Contents”

A control of those that must be specifically visited in the field can be used to send the punches of the SIAC cards. To do this, the station must be configured from SiConfig+ as Beacon Control and setting the option "Send All Card Contents".



In the example in the image, control 100 has been set with parameters to force the SIAC card to transmit all of its data. The punch is done wirelessly like any other control of the route. The radiocontrol (Android mobile with the USB-SRR dongle and the SiPunchTxUsb application) is placed near the control to receive the punches and send them to the CPI server.

In this case, the SIAC card sends the station numbers as programmed. In other words, CPI does not alter the definition of the start and finish stations since it is only dedicated to transmitting what the station sends it.

SIAC card through Beacon Control and option "Send All Unsent Records"

This case is the same as the previous one but indicated for when you want to locate several successive places to download the contents of the cards. Instead of forcing you to always send all the data, you can also set an option for the SIAC card to send only those punches that it has not yet sent. To do this, it is programmed with Beacon Control and the option "Send All Unsent Records".

The following image shows a transmission example that does not differ from the previous one. This is because it is the first transmission. If a second transmission was made later, only the new punches would be transmitted.