

## Introduction

This program can crack the keys of an OV-Chipkaart (Dutch public transport card) and read all the data stored on the card.

This program is a ported version of MFOC originally made by Nethemba (<http://code.google.com/p/nfc-tools/>). We have adapted the program for better performance for the OV-chipkaart.

## Installation prerequisites

You need to install 2 other programs before you can run the OV MFOC Port: libnfc-1.3.9 for Windows and Microsoft Visual C++ 2010 Redistributable Package. You also need the drivers for your RFID-reader.

Install the drivers of your reader:

This can be different for your reader the best place to find the drivers is on the page of the manufacturer. The drivers for the touchtag-reader can be found at

<http://www.touchatag.com/downloads>

Install libnfc:

Go to <http://code.google.com/p/libnfc/downloads/list> download [libnfc-1.3.9.msi](#) and install by following instructions.

Install Microsoft Visual C++ 2010 Redistributable Package:

If you run 64 bit Windows you should follow this link:

<http://www.microsoft.com/downloads/en/details.aspx?familyid=BD512D9E-43C8-4655-81BF-9350143D5867&displaylang=en>

For 32 bit follow this link:

<http://www.microsoft.com/downloads/en/details.aspx?familyid=A7B7A05E-6DE6-4D3A-A423-37BF0912DB84&displaylang=en>

## Running OV MFOC Port

Unzip the OV MFOC Port archive.

Connect your RFID reader, place the OV-chipkaart on the reader and start "OV MFOC Port.exe". The program will start to crack the keys of the card. The cracking process will take about an hour. When all keys are found, the program will store them in the keys directory. After the keys are cracked, the program reads out the card and stores the data in a dumpfile (for example *dumpfile 87654321 (1291044100).dump*). The next time the program uses the saved keys and skips the cracking stage.

## Compiling the software (if you want to make modifications)

We used Visual Studio 2010 to compile the source. You also have to install all the prerequisites listed above (except the "Microsoft Visual C++ 2010 Redistributable Package" since this is included in Visual Studio).

Setting up the project:

1. Locate the libnfc installation directory (C:\Program Files\libnfc-1.3.4\ or C:\Program Files (x86)\libnfc-1.3.4\ by default).  
*Note:* libnfc-1.3.9 installs itself by default in libnfc-1.3.4.
2. Copy the *include/stdbool.h* file from the archive to the *include* directory of libnfc.
3. Make a new empty project in Visual Studio.
4. Open Project->Properties and select Configuration Properties -> VC++ Directories.
5. Add the *include* folder of libnfc to "Include Directories".
6. Select Configuration Properties -> Linker -> Input.

7. Add *nfc.lib* (located in *lib* folder of libnfc) to the Additional Dependencies.
8. Hit OK.

Copy all the files from the *src* folder to the project folder. You have to add the files to your project. You can do this by selecting “Project->Add Existing Item” and select all the new files and press Add.

Pressing the play button should run the program.