Dear Sir, Madam

First of all, let me thank you for purchasing Smart Card Detective. We hope the product will satisfy your expectations.

Smart Card Detective is pre-programmed with the most recent version of software available at the time of its pre-sale testing and it is ready to use. You can visit web site

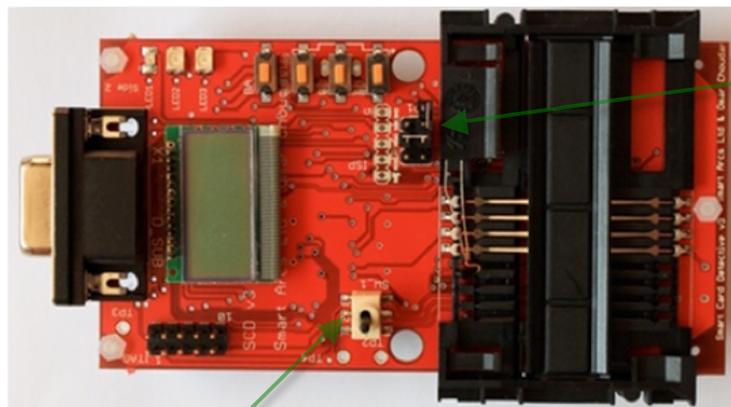www.smartcarddetective.com

 for up-to-date information. The web site also provides a user forum where you can ask questions if you encounter any problem. The software is being developed under non-commercial GPL license and you can download latest release from the internet. Following lines describe how to start using Smart Card Detective, become involved in the community of users, and make most of Smart Card Detective.

Dan Cvrček
Director of Smart Architects

Before You Switch It On

First of all, please make sure that Smart Card Detective is correctly set up. The following picture shows the main jumpers and switch.

The power switch between external source and battery (SW1) should be in the position for battery, i.e., towards the nearest side (down on the picture above).

External power source selection jumpers (from top):
- DB9 connector;
- miniUSB; and
- JPEXT connector.

Power switch SW_1 between external source / battery

Jumpers for external power source selection should connect middle pins for the miniUSB connector as shown on the picture above. The following table shows positions of those two components for various situations.

Cables

Please use the provided USB cable to connect SCD to your computer. This cable will provide power supply for SCD and it can also be used for serial communication between your computer and SCD.

Smart cards will be plugged directly into the black edge connector on SCD if required for a selected application.

Smart card terminals (smart card readers, CAP calculators, payment terminals, and so on) will be connected by the provided smart card interface. This interface is plugged into a terminal instead of a smart card. It is connected to SCD's UART connector.

How Smart Card Detective Works

SCD is shipped with a set of pre-programmed applications. The list of applications varies according to the firmware as we usually provide a recent version of firmware. The firmware is also available from Google Code (http://code.google.com/p/smartcarddetective/). The name of the currently selected application is shortly shown on the LCD display when you hold the BB button while pressing the RST bottom (located at the bottom of SCD, under the smart card edge connector).

Smart Card Detective can execute all programmed applications in stand-alone mode although we work on a new communication protocol that would allow you to control Smart Card Detective from a computer via a USB cable. This software for PC is being implemented as Python scripts

A connection to the computer is always required for programming and debugging.

Switching Smart Card Detective On

1. Switch on the device by switching SW_1:
   a. to the position towards the centre of SCD if you are using an external power source (miniUSB, 9 pin UART connector, or a power supply connected to JPEXT).
   b. To the position towards the edge of SCD if you are using the CR batteries.
2. Hold the BB button while pressing RST. This will put SCD into the application selection mode.
   Note: You can skip this step (and go directly to step 4) and SCD will run the most recently selected application.
3. In the application selection mode use BC to scroll through the available applications (e.g. Filter Amount, Log Transaction, Modify PIN, Terminal, and so on). Select the desired application by pressing the BD button once the application name is shown on the LCD display.
4. After the application is selected the SCD will enter sleep mode (the display shows only dark rectangles).
5. Some applications require both a reader/terminal (e.g. Filter Amount, Log Transaction, Modify PIN). If you selected one of those applications then you must first insert the card into the SCD, preferably before switching it on. While in sleep mode connect the SCD to the reader (using your ICC card connector). Card transactions are then controlled by the connected reader/terminal.
6. If the selected application only requires a card (e.g. Terminal) then make sure there is no card inserted before switching on the device. Once the SCD is in sleep mode (after application selection) you can insert the card. At this point the SCD will start executing the selected application.
7. If the selected application does not require a card (e.g. a card emulator application) then this application should start as soon as you insert the card connector into the reader.

Further Information

Much more information can be found on the Smart Card Detective web site www.smartcarddetective.com. You can put your questions, discoveries, experiences into the user forum available on the website.

You can also email any questions to scd@smartarchitects.co.uk.