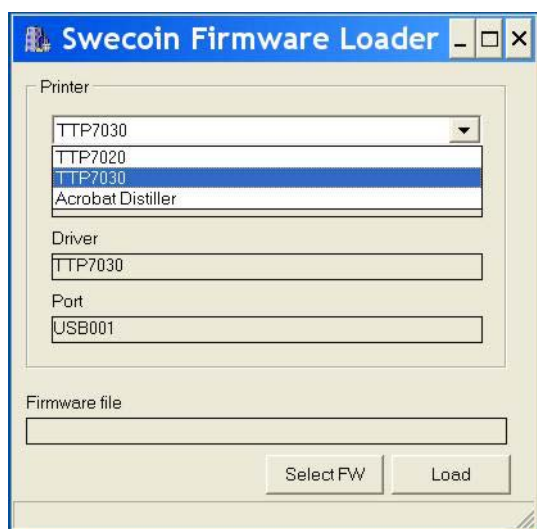# Upgrading firmware in Swecoin TTP-series of printers

Introduction

There are several ways to upgrade firmware in a TTP printer. The method to use depends on how the printer is used and which interface it has.

1) The ordinary kiosk installation today (2004) is a kiosk running Windows 2000 or XP using a printer driver supplied by Swecoin.
   In such case, the easiest way is to use the "Swecoin Firmware Loader" application program. It sends the firmware file through the Windows driver to the printer.

2) If you do not use a Windows driver, the port is available directly for other programs. Here you can use the Swecoin TTP editor that has functions for communicating through parallel and serial ports. Should you have a printer with USB-interface, a serial adapter must be temporarily used while upgrading firmware.

3) If you want to integrate firmware loading into your kiosk application, the commands used to load firmware into the printer are described in the Technical Manuals for the printers.
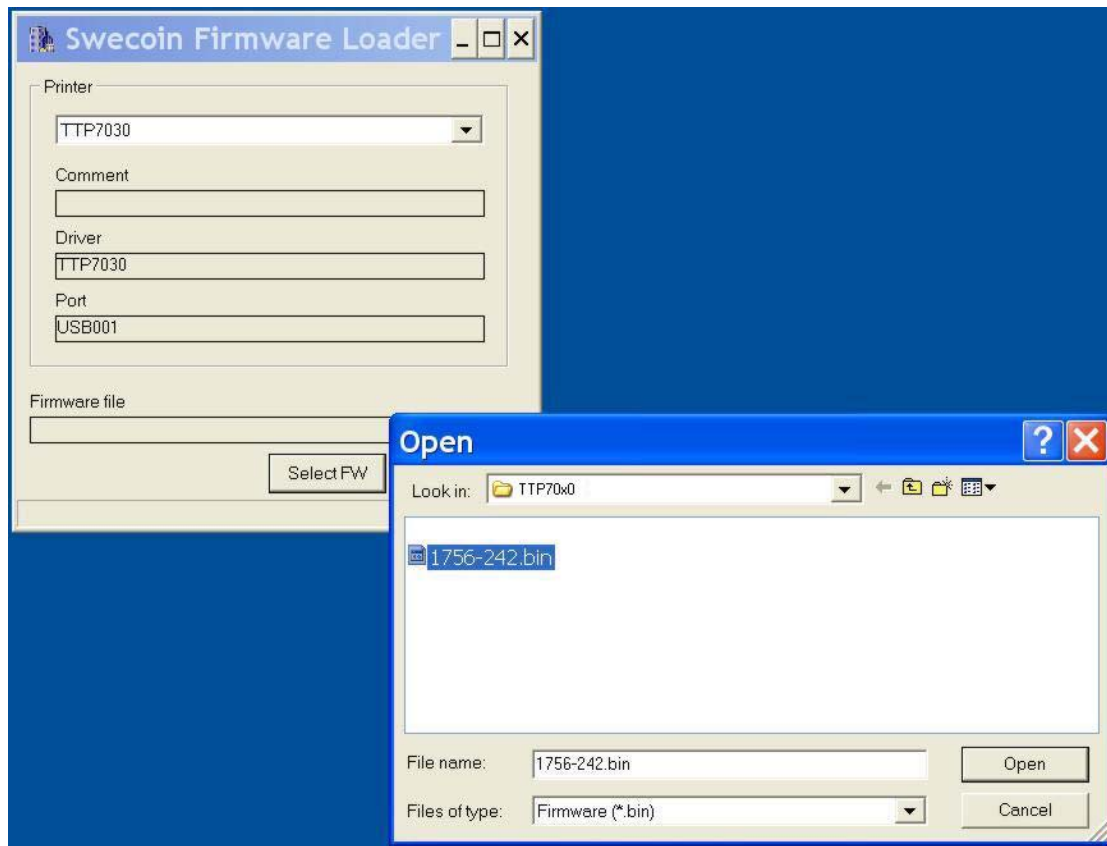
Using Swecoin Firmware Loader

1) Start the Firmware loader application
2) Select the driver for your Swecoin printer. The grayed Port field indicates which port the printer should be connected to.
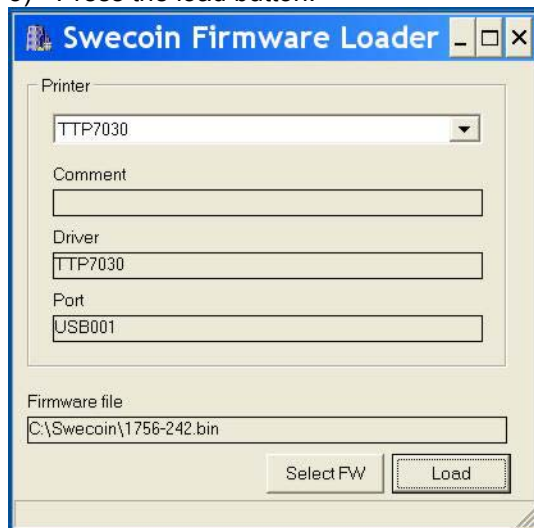
3) Press the Select SW button, browse to the location of the firmware file you want to use, and open it.

4) Make sure the printer is switched on and ready to use (paper loaded etc.).
5) Press the load button.

Wait until the printer buzzes and the indicator returns to steady light.
The firmware is now loaded into the printer and burnt into the Flash-ROM.

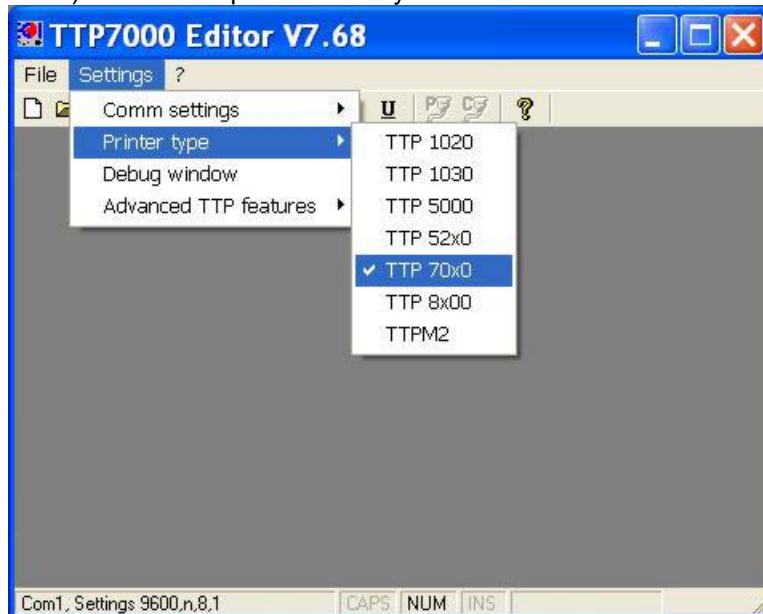|	
CAUTION! –	*It is very important <u>not</u> to switch off the printer before the burning process is completed. Doing so will make the printer inoperable and it will not be possible to load firmware again.*
	The burning process may take up to a minute.

Using the TTP Editor

1) Start the TTP Editor application
2) Select the printer model you want to load firmware to.

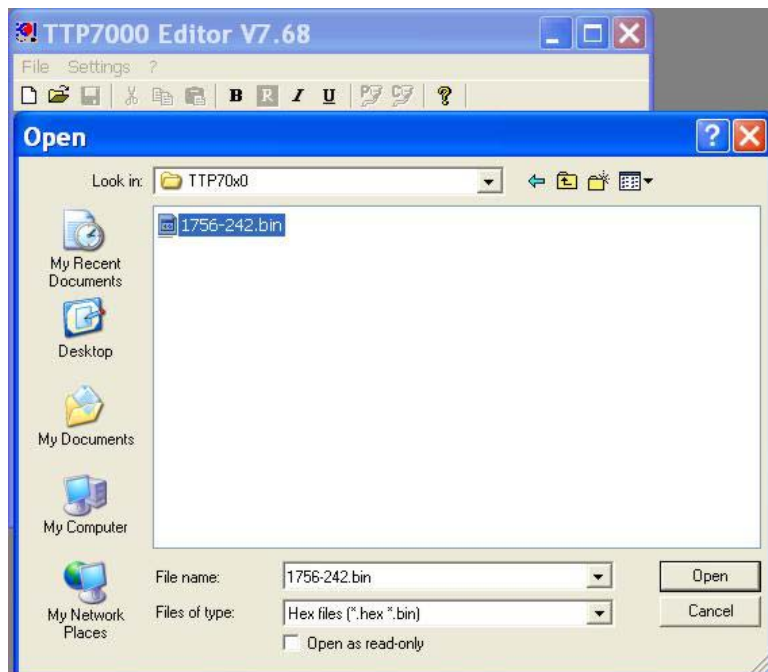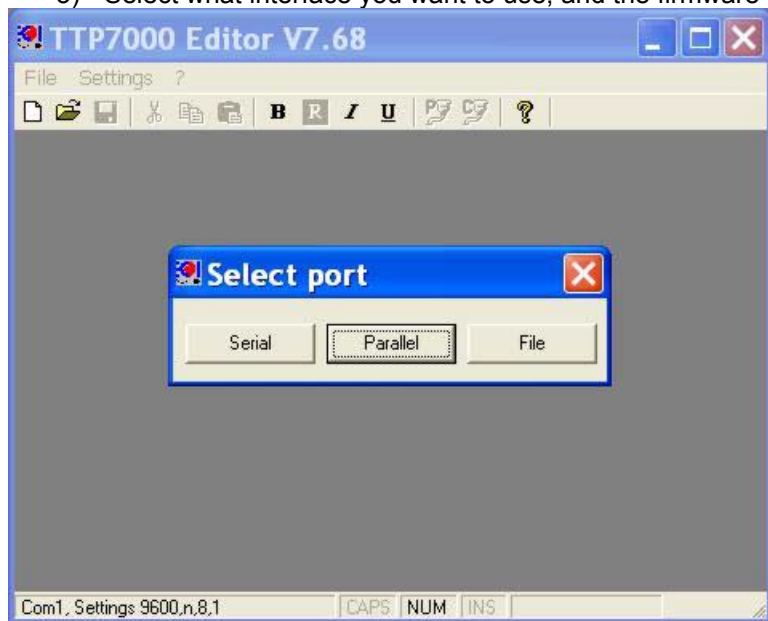3) Select "Load firmware to printer" From the Settings menu.

4) Browse to the location of the firmware file you want to use, and open it.

5) Select what interface you want to use, and the firmware loading starts.

Wait until the printer buzzes and the indicator returns to steady light
The firmware is now loaded into the printer and burnt into the Flash-PROM.

CAUTION! –	It is very important <u>not</u> to switch off the printer before the burning process is completed. Doing so will make the printer inoperable and it will not be possible to load firmware again. The burning process may take up to a minute.

If something goes wrong

If firmware loading fails for any reason, for instance if power is lost before the new firmware is burnt into the Flash-PROM, the printer will appear totally dead.

If this happens the printer needs to be sent in for service to Swecoin or a Swecoin distributor. Please contact support@swecoin.se for help.

What we do in such case is to use a special boot-loader[1] in order to make it possible for the printer to communicate. When communication is established firmware, fonts, and parameters can be loaded. When boot loader is used, all contents of the Flash-PROM are erased so fonts and parameters must be set up.

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[1] The boot loader for TTP 10x0 is an external PCB with drive-electronics and a serial port on it.
The boot loader for TTP 7000 and TTP 8x00 is a PCB with a PROM. After installing it, you can load boot routines through the normal ports, then disconnect the board and load new firmware.
For the TTP 7020 and TTP 7030 you connect a jumper on the control board and install the serial adapter option. Boot and firmware are then loaded through the serial interface.