

Flash Starter Kit – PISMO™ USB Programmer

Quick Start Guide



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1. Introduction

This document describes a basic software installation of the Flash Starter Kit - PISMO™ USB Programmer (FSK-PUP) hardware tool. The objectives of this guide are as follows:

- Install FSK-PUP hardware and the Flash Explorer applications software that runs it.
- Perform device edit operation to show that the installation is operational.

Note: The FSK-PUP and Flash Explorer are capable of far more operations than will be shown in this Quick Start Guide.

2. Installing the FSK-PUP

Required Components:

- FSK-PUP unit with cable
- PISMO1 module whose data can be overwritten (either NOR or ORNAND™)
- Access to the installation files
- Compute desktop or laptop

This installation works on the following configuration:

- Windows® XP, Version 2002, with Service Pack 2
- USB port
- 1.87 GB of RAM (minimum)

2.1 Installation Steps

This guide was written for an installation of the FSK-PUP connected to a laptop/desktop computer and a PISMO1 module installed in the FSK-PUP as shown in [Figure 2.1](#).

Remove all prior versions of FSK-PUP drivers and Flash Explorer software. This can be done with the Windows Add or Remove Program.

Figure 2.1 FSK-PUP and Cable



PROG/MSD Switch

The switch on the side of the FSK-PUP should be moved to PROG.

2.2 Obtain the Required Files

Go to the Spansion® tools website and download the latest versions of the zip files at http://www.spansion.com/flash_memory_products/support/hardware_development.html.

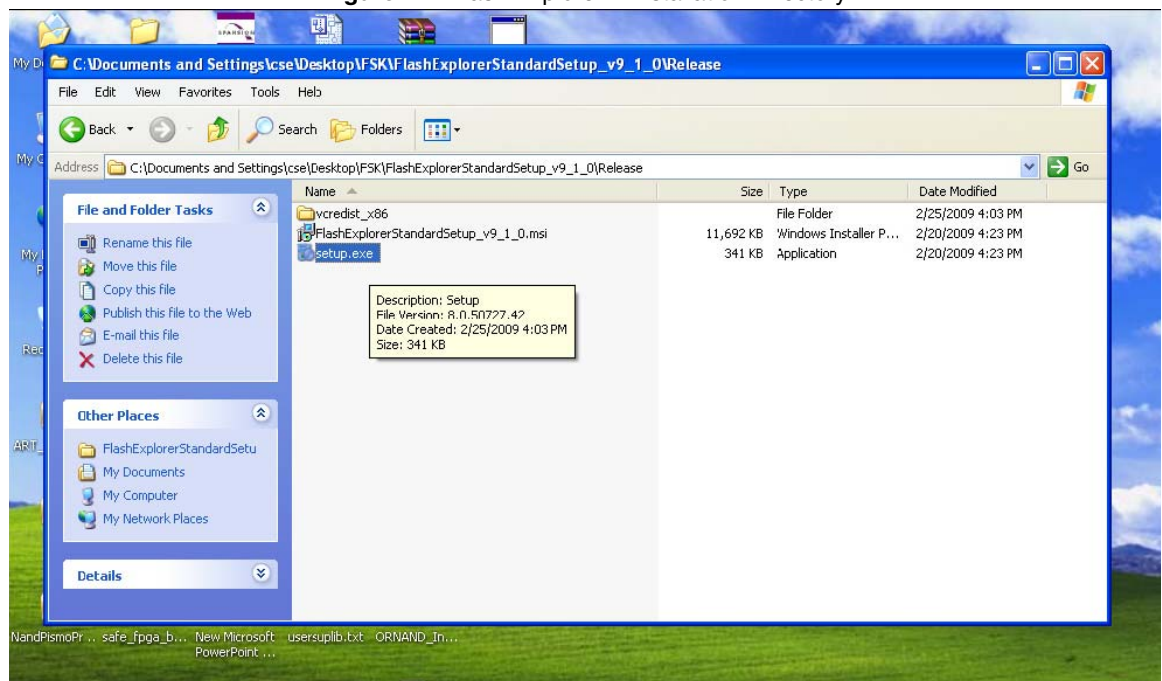
The latest Flash Explorer software 'FlashExplorerStandardSetup_v9_1_0.zip'

The latest FSK-PUP USB driver 'FSK-PUP_Type_II_v9_1_0.zip'

2.3 Install Flash Explorer

1. Extract all files in the zip files on your computer. The location is not important.
2. Go to the FlashExplorerStandardSetup_v9_1_0/Release directory and you will see the following directory structure.
3. Double click 'setup.exe'.

Figure 2.2 Flash Explorer – Installation Directory



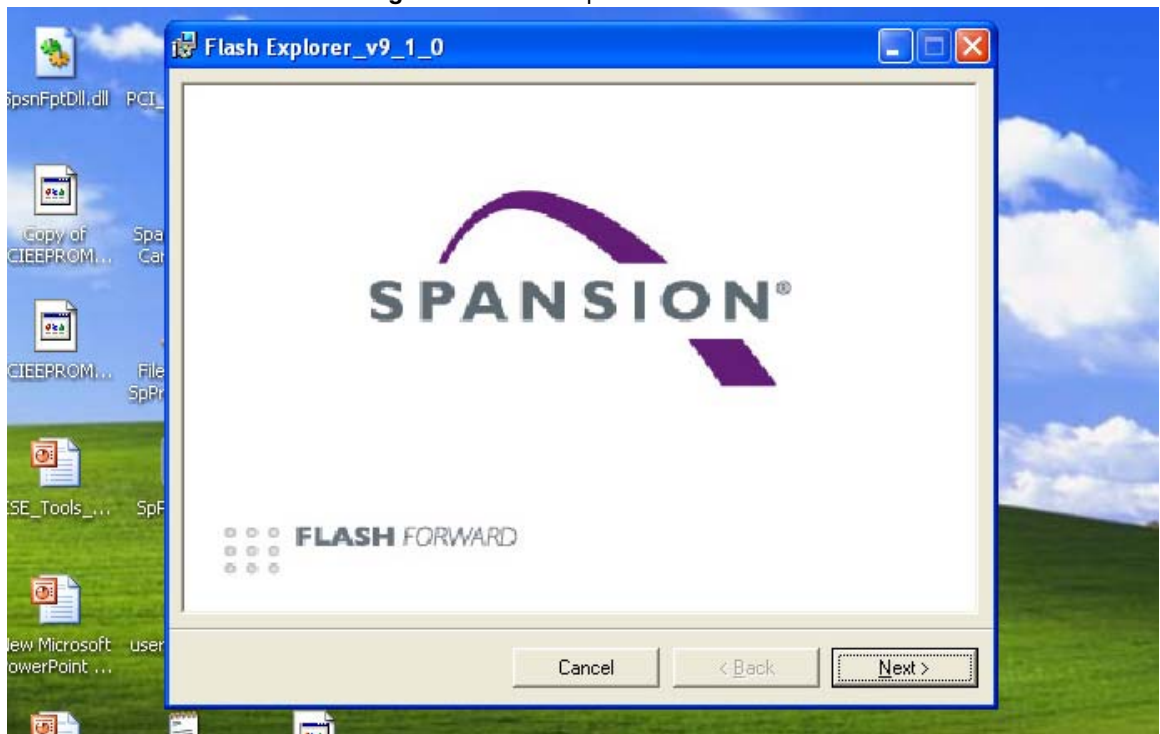
4. Click 'Install'.

Figure 2.3 Flash Explorer – Setup



5. Click 'Next'.

Figure 2.4 Flash Explorer – SPANSION



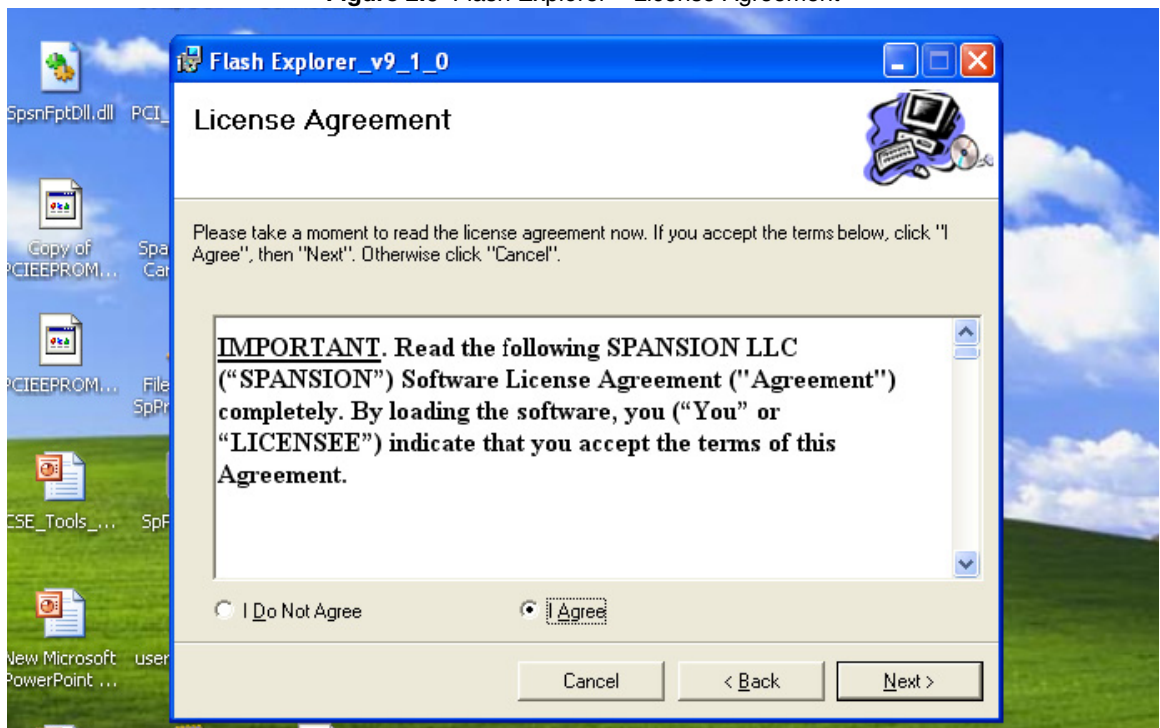
- Click 'Next'

Figure 2.5 Flash Explorer – Setup Wizard



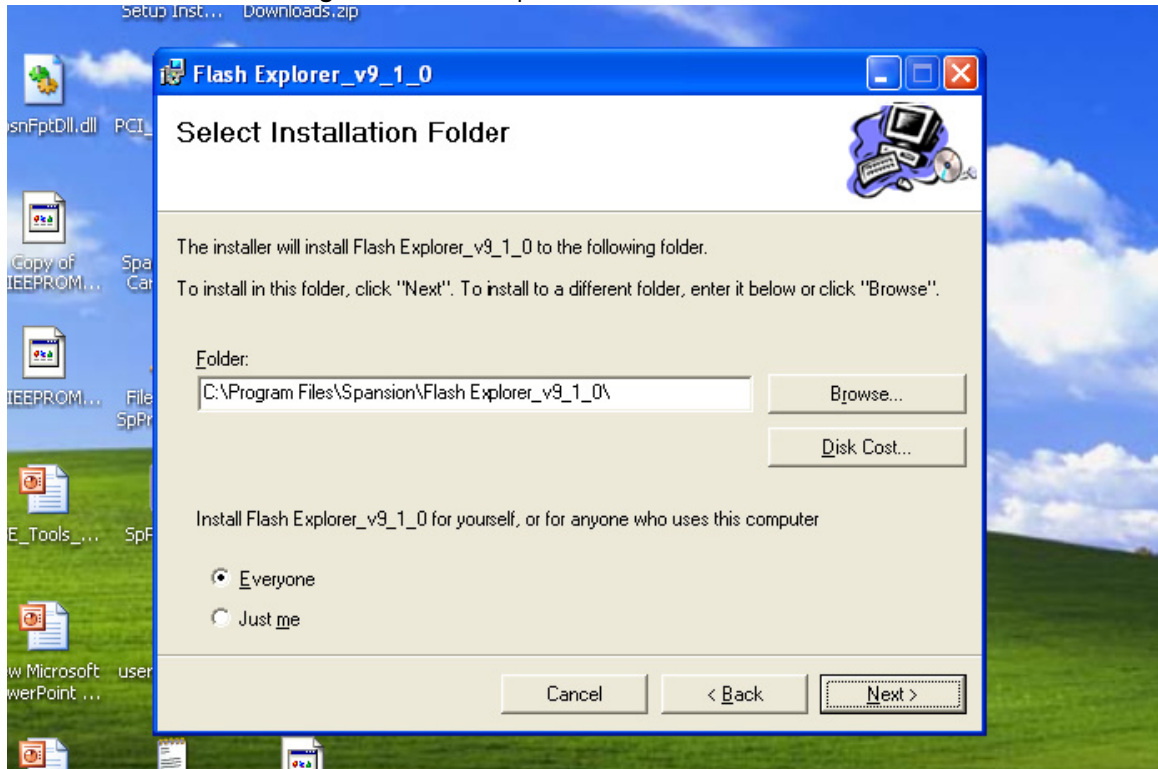
- Read the License Agreement. Select 'I Agree'. Click 'Next'.

Figure 2.6 Flash Explorer – License Agreement



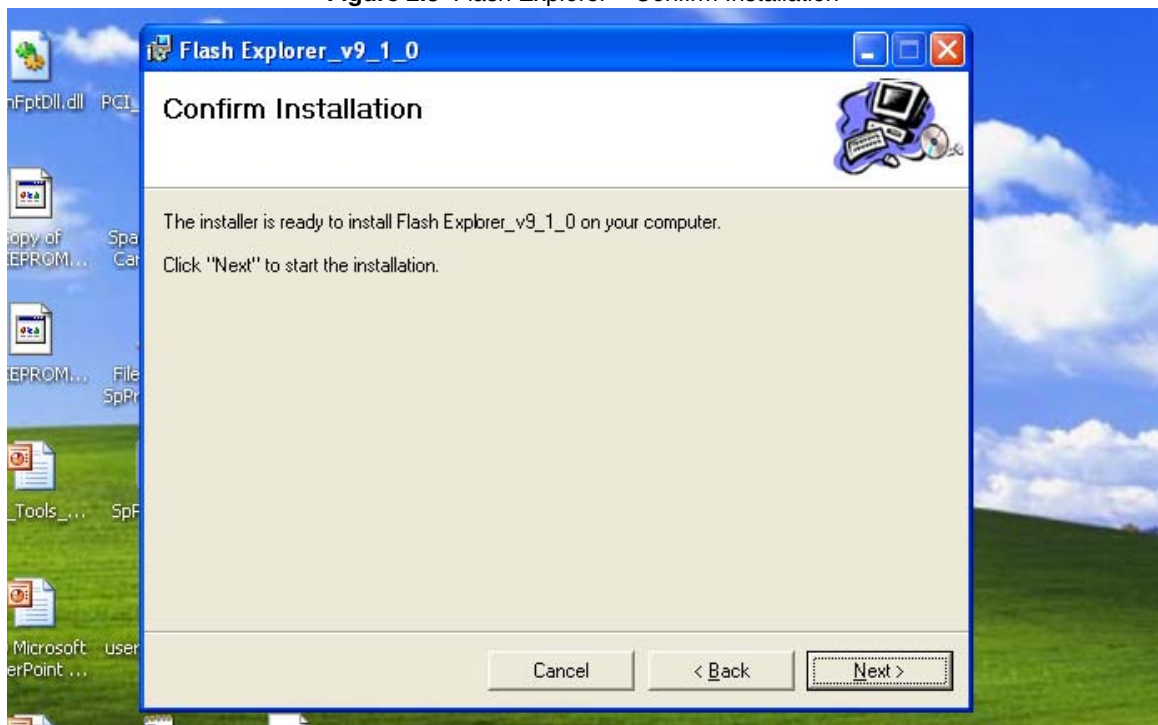
- Click 'Next'

Figure 2.7 Flash Explorer – Select Installation Folder



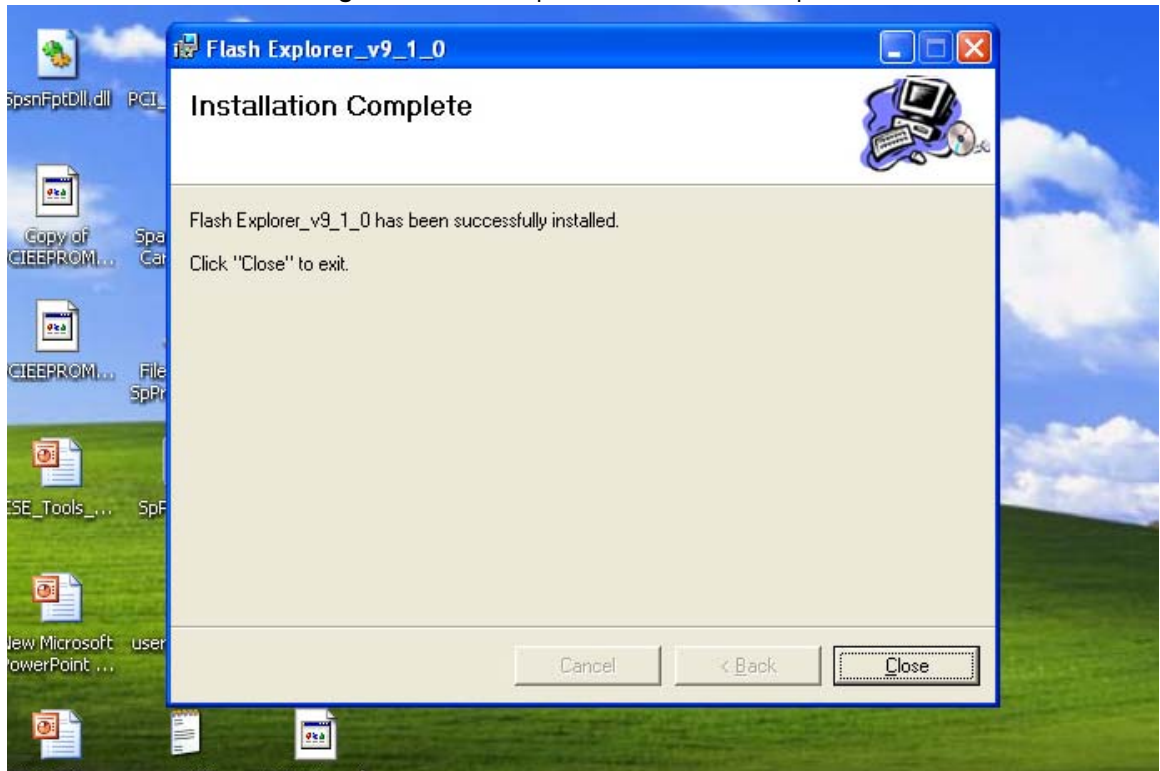
- Click 'Next'

Figure 2.8 Flash Explorer – Confirm Installation



10. The Flash Explorer installation is completed. Click 'Close'.

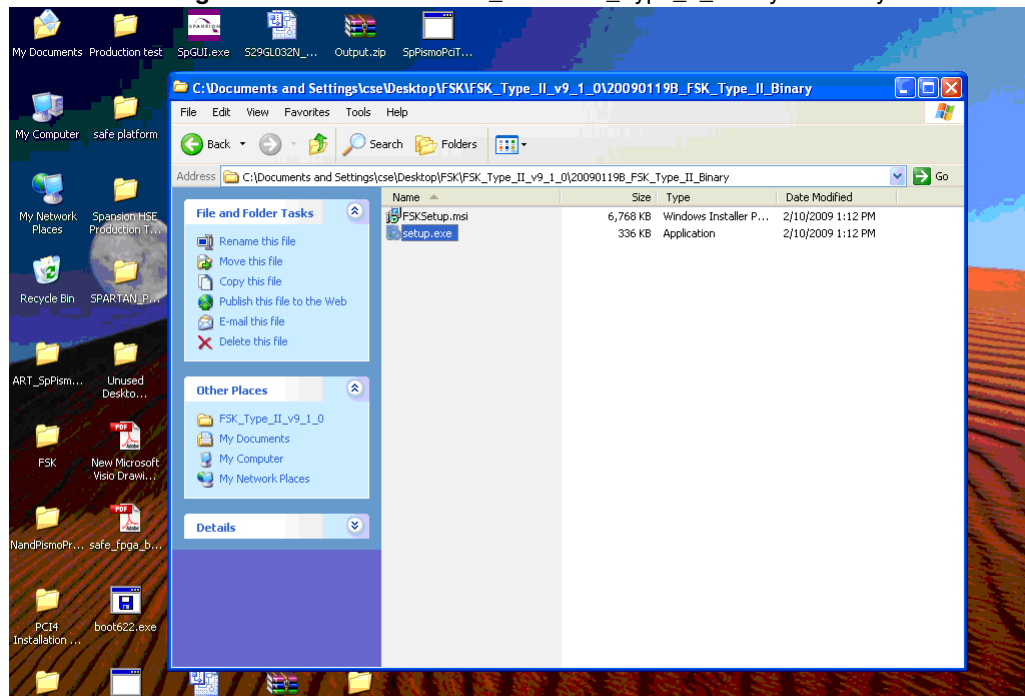
Figure 2.9 Flash Explorer – Installation Complete



2.4 Install FSK-PUP Driver

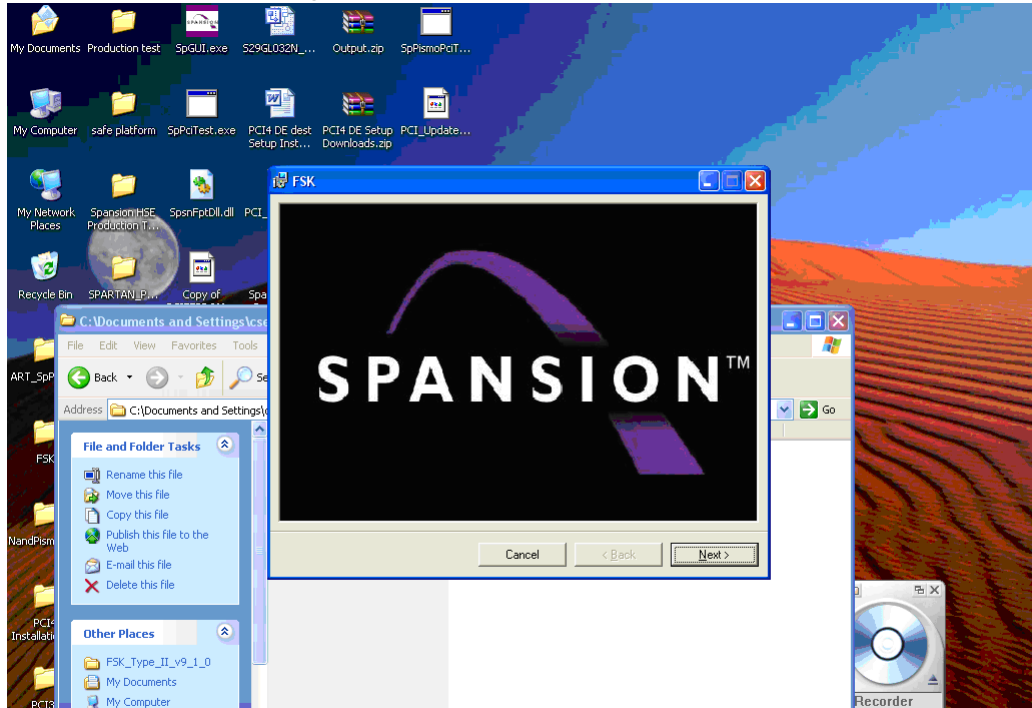
1. Go to the FSK-PUP_Type_II_v9_1_0/20090119B_FSK-PUP_Type_II_Binary directory and you will see the following directory structure.
2. Double click on 'setup.exe'.

Figure 2.10 The '20090119B_FSK-PUP_Type_II_Binary' Directory



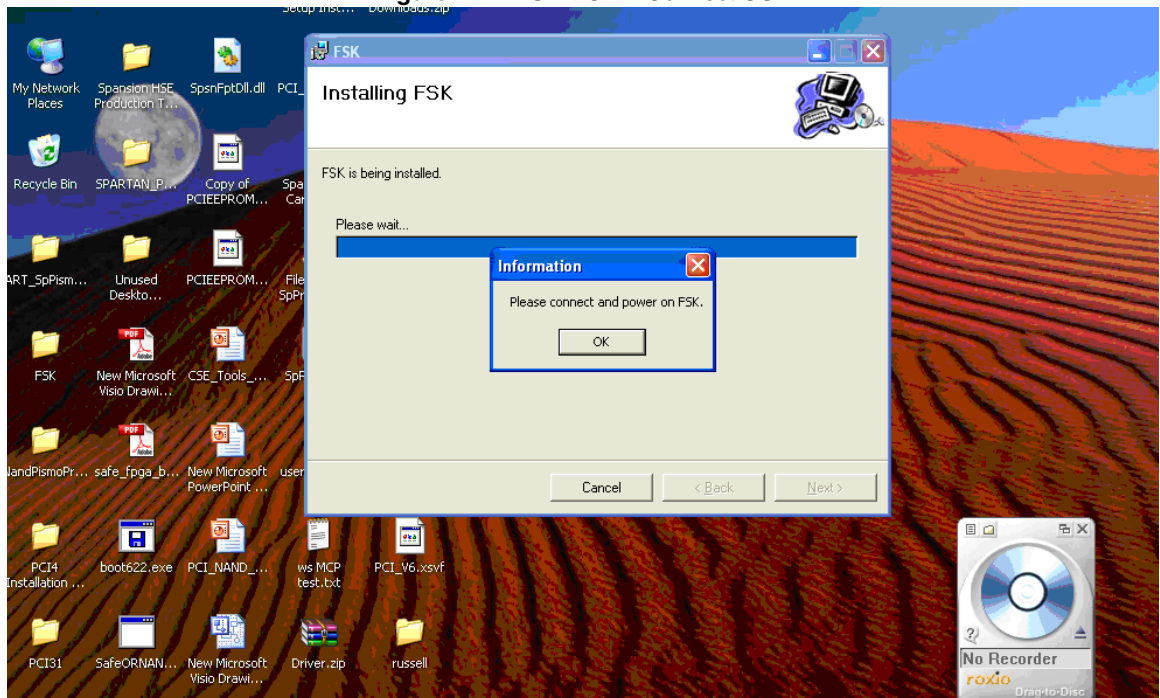
3. For the next dialog boxes do the following:
 - a. 'SPANSION' – Click 'Next'.
 - b. 'Welcome to FSK Setup Wizard' – Click 'Next'.
 - c. 'License Agreement' – Select 'I Agree'. Click 'Next'.
 - d. 'Select Installation Folder' – Click 'Next'.

Figure 2.11 FSK-PUP – SPANSION



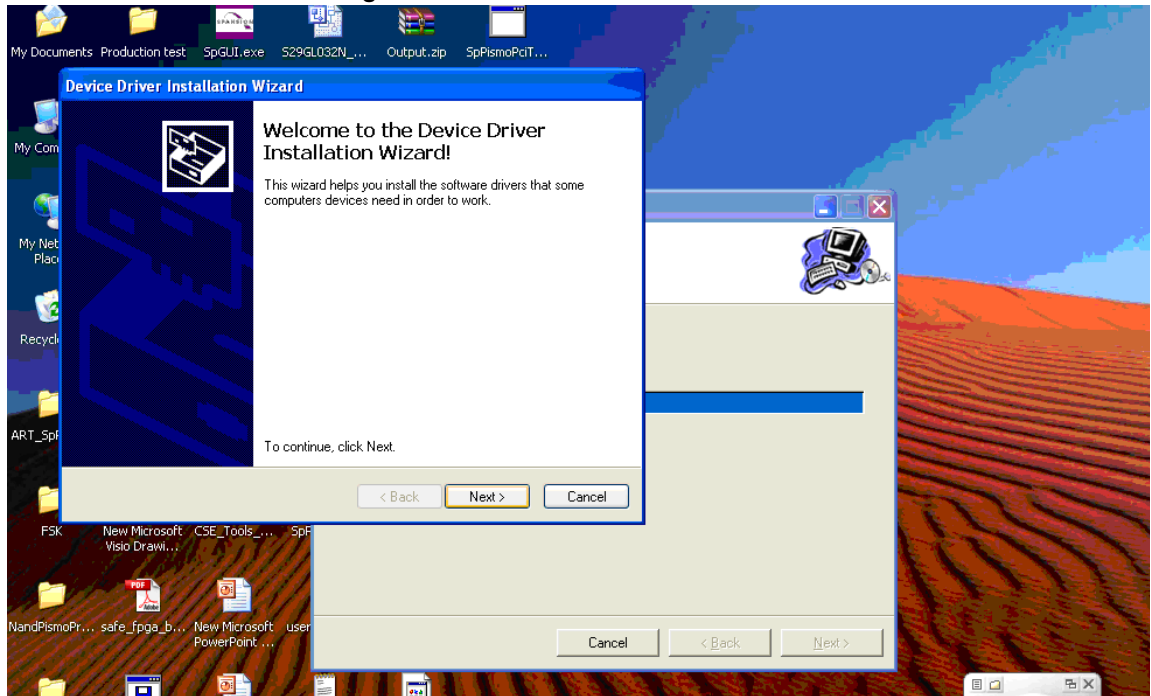
4. Connect the FSK-PUP to your computer with the USB cable.
5. Click 'OK'.

Figure 2.12 FSK-PUP – Connect USB



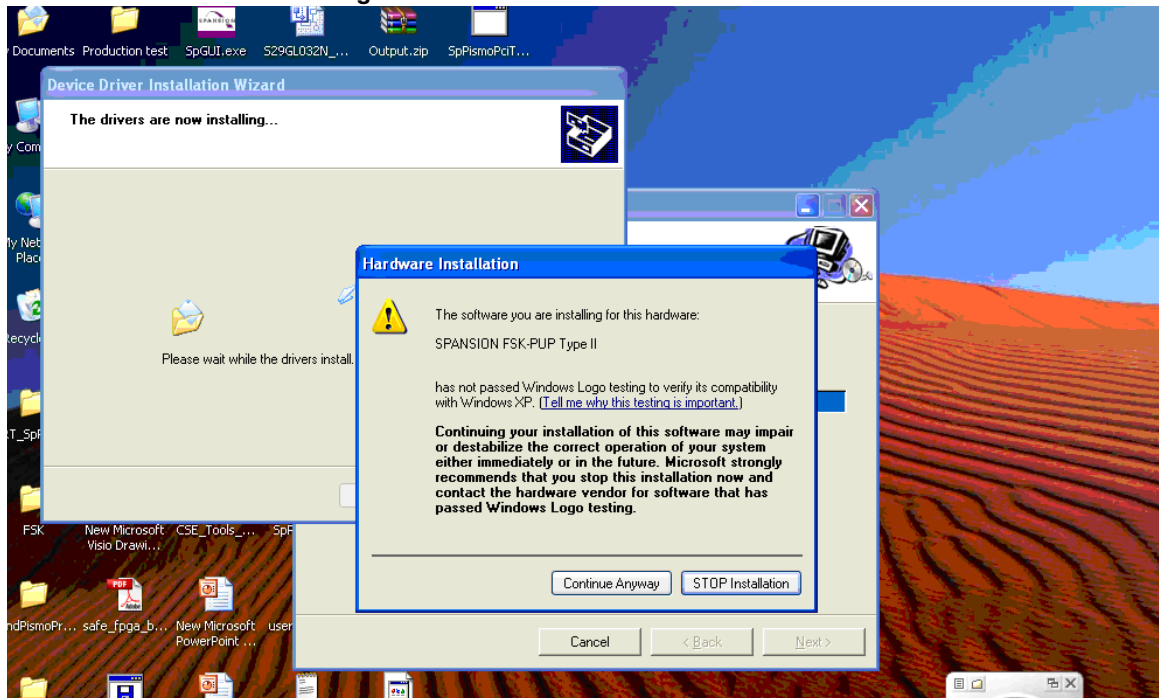
6. Click 'Next'.

Figure 2.13 FSK-PUP – Installation Wizard



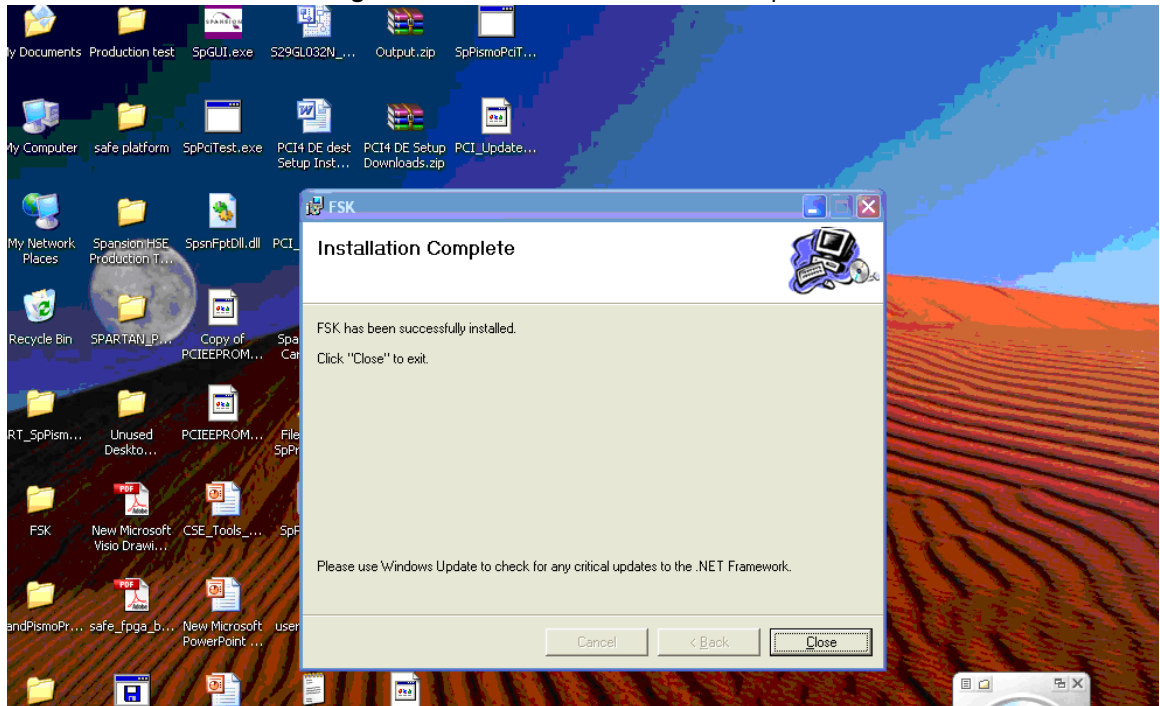
7. Click 'Continue Anyway'.
8. Click 'Finish'.

Figure 2.14 FSK-PUP – Hardware Installation



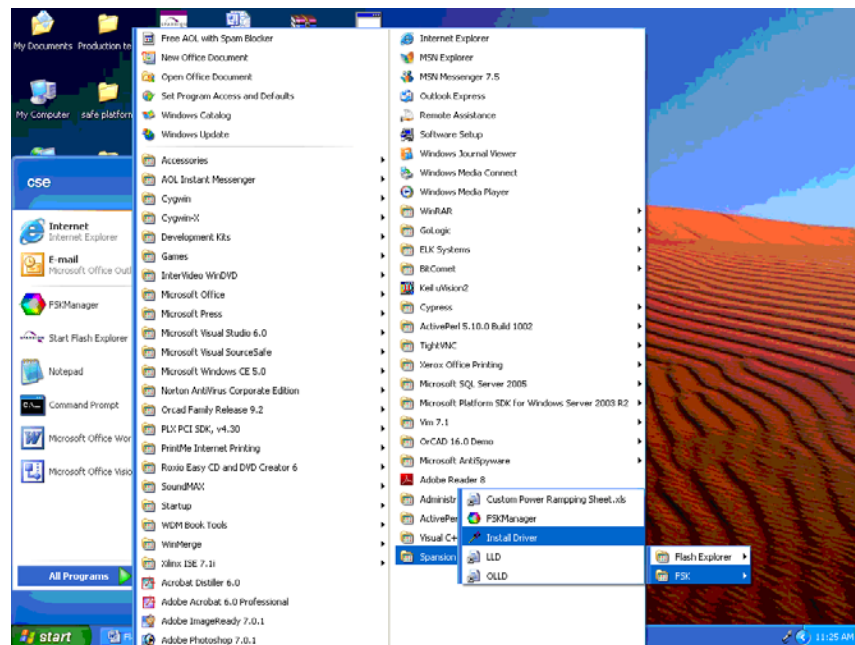
9. The FSK installation is complete. Click 'Close'.

Figure 2.15 FSK-PUP – Installation Completed



10. Install the FSK-PUP driver.

11. Start > All Programs > Spansion > FSK > Install Driver



12. Click 'Yes' through the installation.

3. Running Flash Explorer

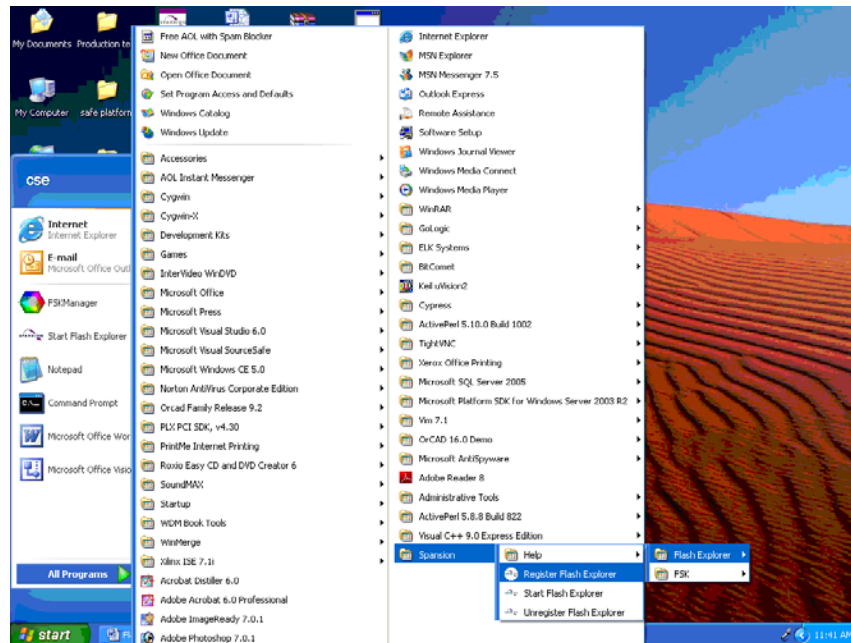
You must have a PISMO1 module installed on the FSK-PUP to run this software correctly. The following uses an unprotected NOR Flash PISMO1 module (S29GL512N11TAE01).

3.1 Register Flash Explorer

With the FSK-PUP connected to your computer by the USB cable and the PISMO1 module installed, do the following from the Start menu:

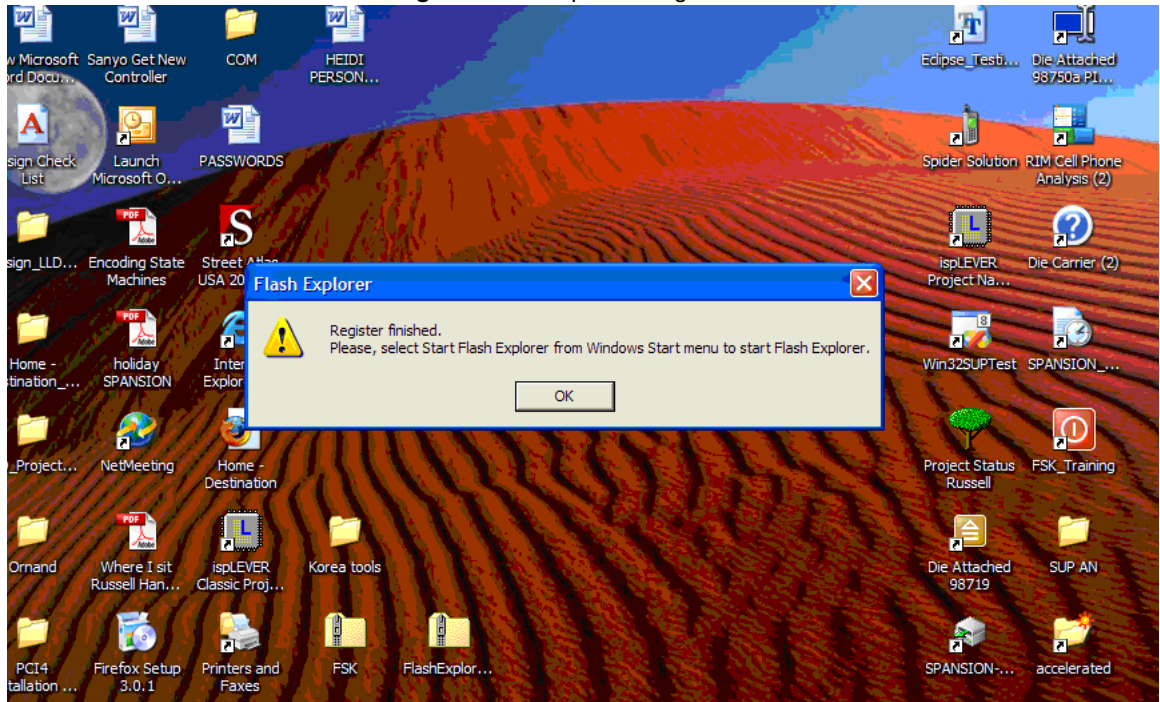
1. Start > All Programs > Spansion > Flash Explorer > Register Flash Explorer

Figure 3.1 Registering Flash Explorer



2. Click 'OK'

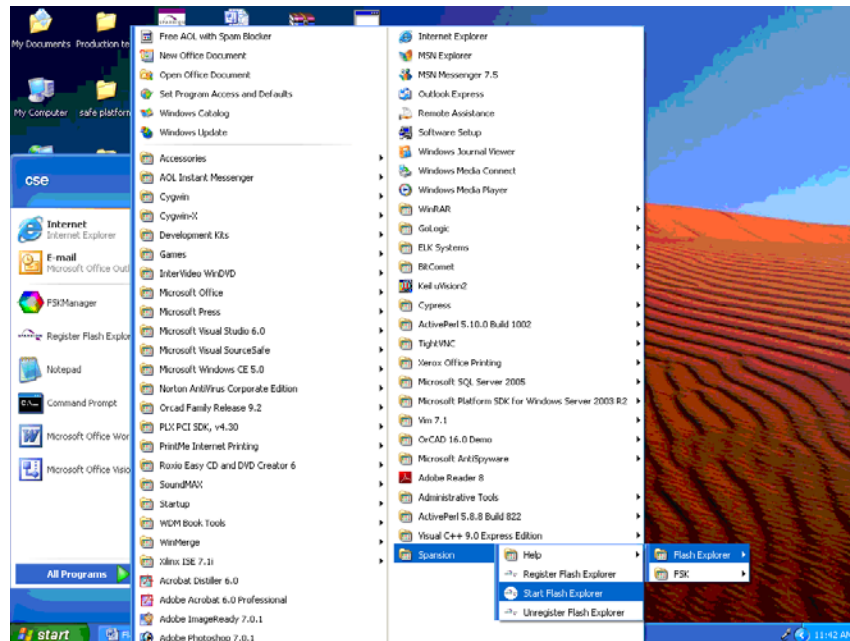
Figure 3.2 Completed Registration



3.2 Start Flash Explorer

Start > All Programs > Spansion > Flash Explorer > Start Flash Explorer

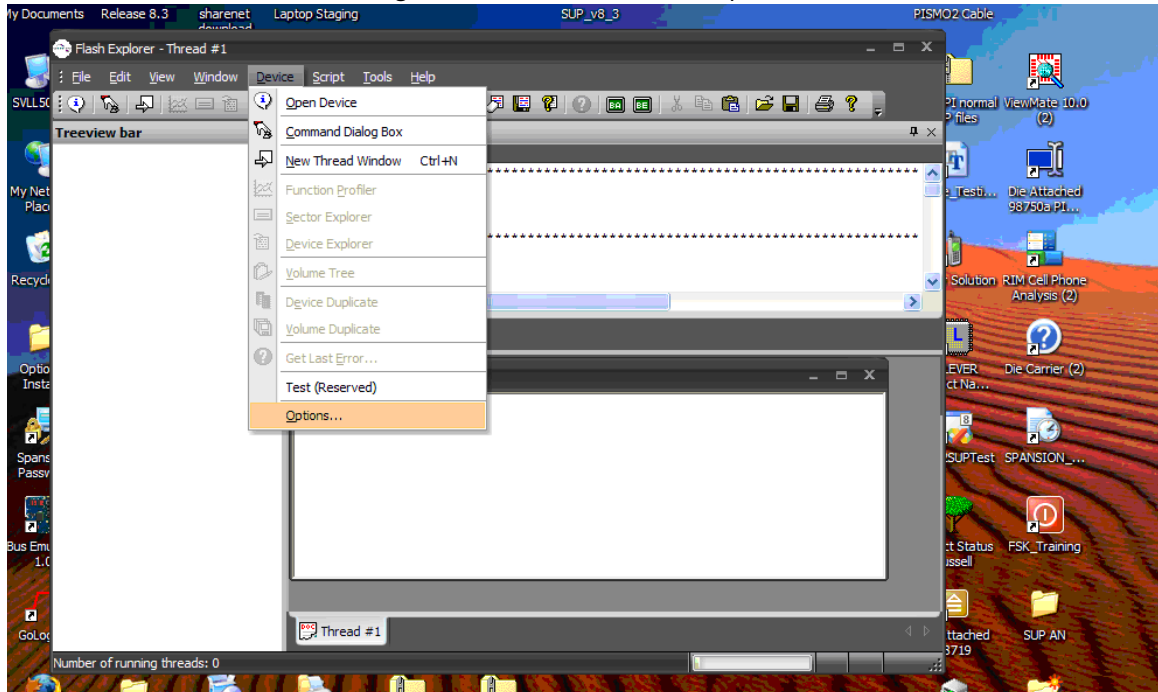
Figure 3.3 Starting Flash Explorer



3.2.1 Select the Library File Support

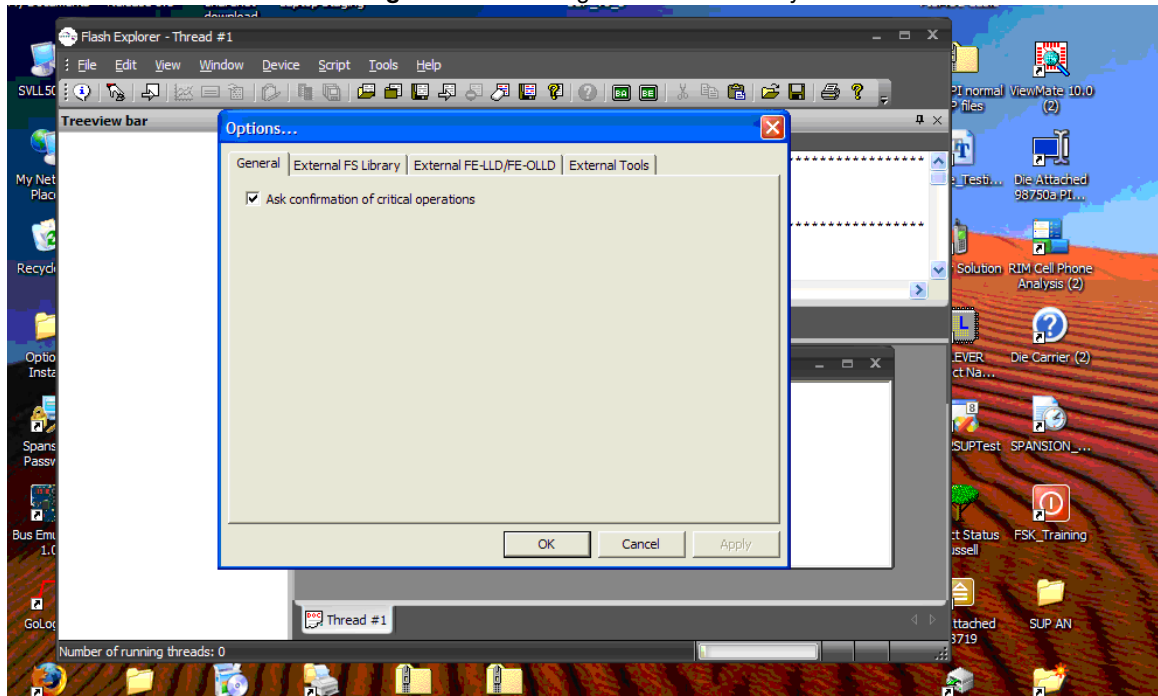
1. Click on Device > Options

Figure 3.4 Selection of Device Options



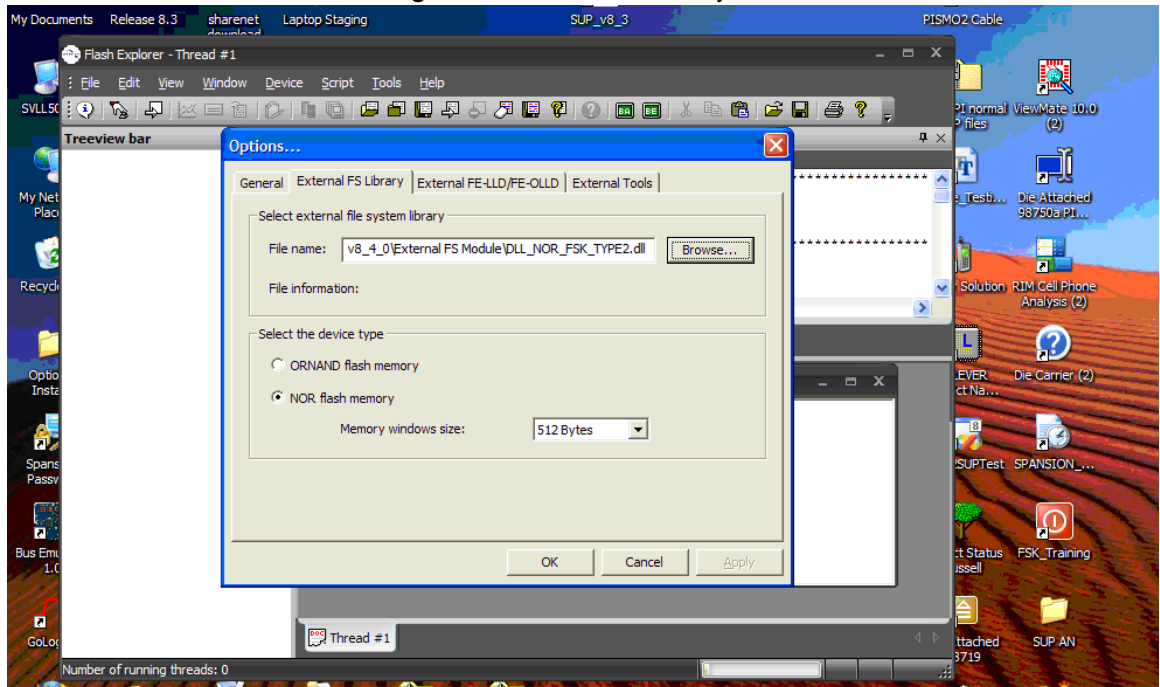
2. Click on the 'External FS Library' tab.

Figure 3.5 Selecting External FS Library



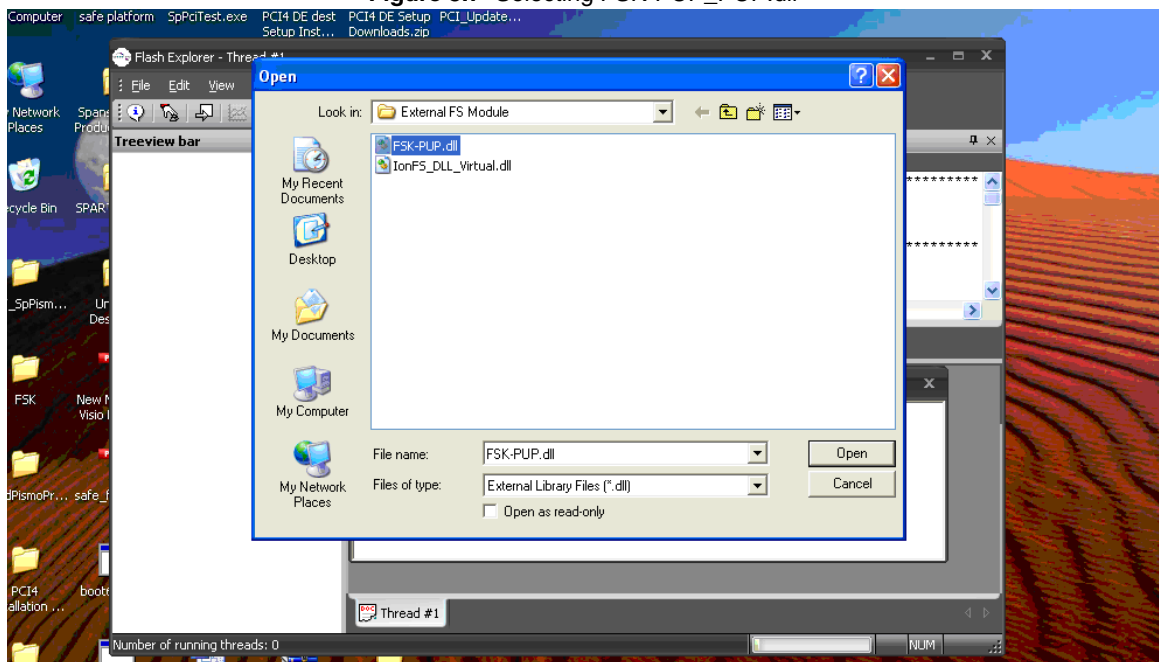
- Click the 'Browse' button.

Figure 3.6 External FS Library Tab



- Select FSK-PUP_PUP.dll and then click 'Open'.

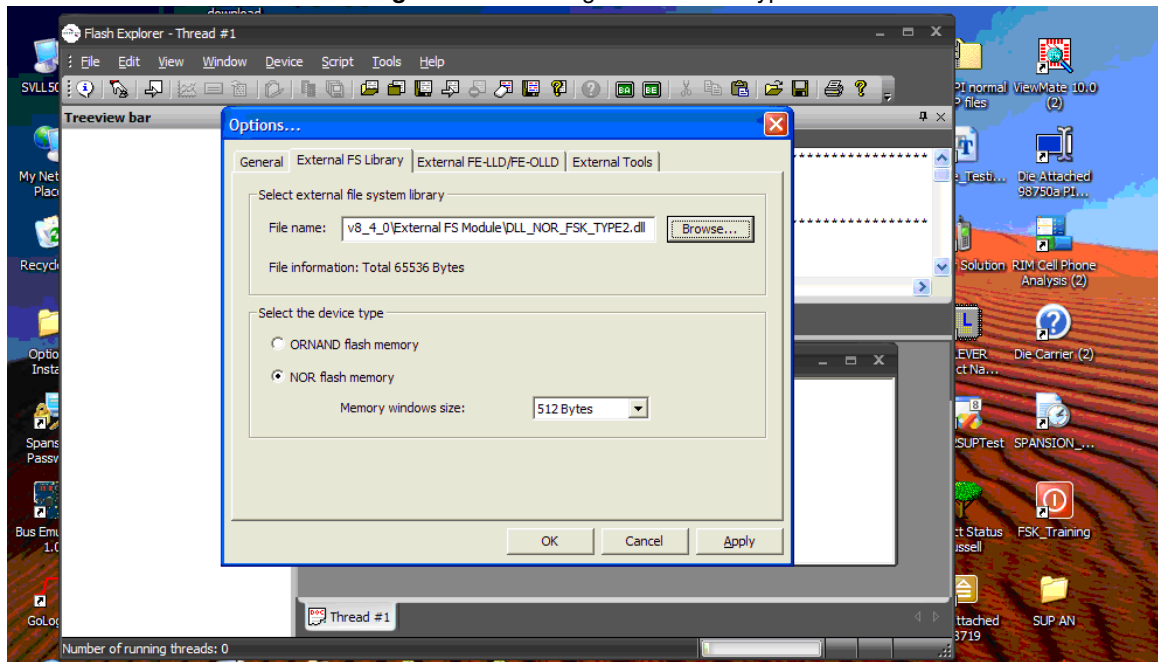
Figure 3.7 Selecting FSK-PUP_PUP.dll



3.2.2 Select the Device Type

1. If an ORNAND device is being tested select 'ORNAND flash memory'. In this case a NOR device is tested so 'NOR flash memory' is selected.
2. Click 'Apply' and 'OK'.

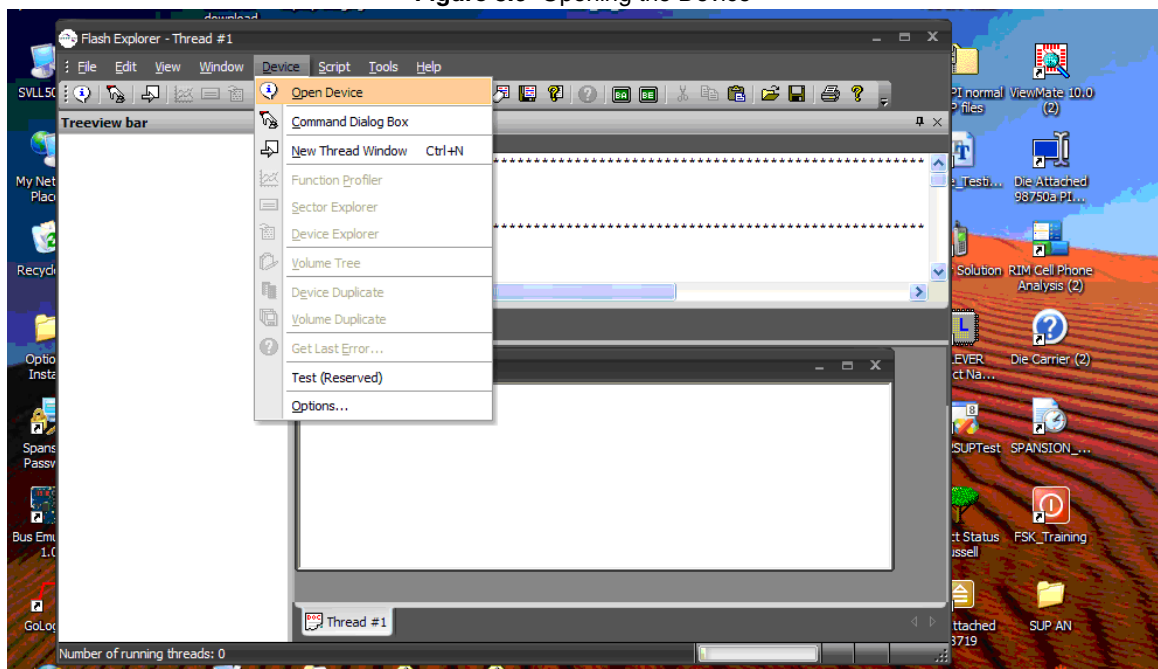
Figure 3.8 Selecting NOR Device Type



3.2.3 Open Device

1. Open the particular device under test.
2. Click Device > Open Device

Figure 3.9 Opening the Device



3. Use the pull down menus to select the 'Device Group' and 'Device' that you are using.
4. Change the selections to fit your PISMO module. In this case, the PISMO1 module is the S29GL512N11TAE01.

Device Group = GL

Device = S29GL512N

Bus width = x16

FSK CS# = CS0

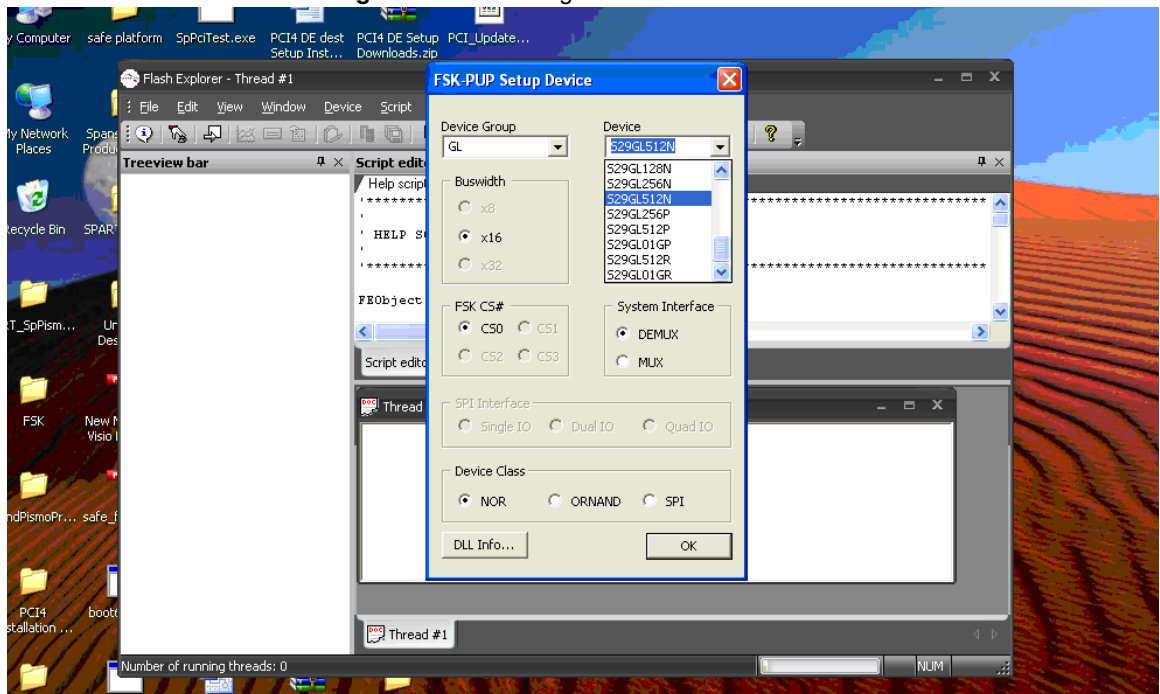
System Interface = Demux

Device Class = NOR

Depending on the PISMO1 module setting you are using, your selections could be different.

5. Click 'OK'.

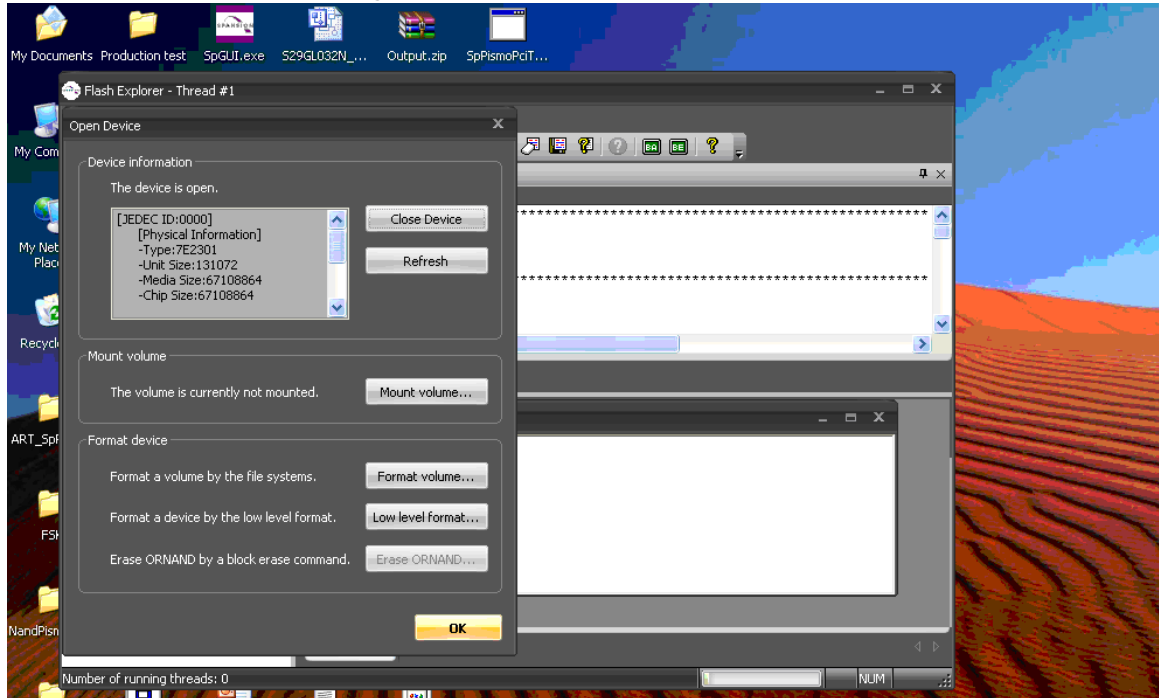
Figure 3.10 Selecting a S29GL512N11TAE01



Both the ACTIVE and SOCKET POWER LEDs will now go out. Then after a 3 to 5 second pause the SOCKET POWER LED and then the ACTIVE LED will light. There will typically be another pause, but then the device information will be displayed as shown in [Figure 3.11](#).

Note: If after attempting to open a device you get an Error message like the one in [Figure 3.12](#), then the hardware code in your FSK-PUP unit is out-of-date and needs to be upgraded. The steps for doing this upgrade are shown in [Section 3.2.4](#).

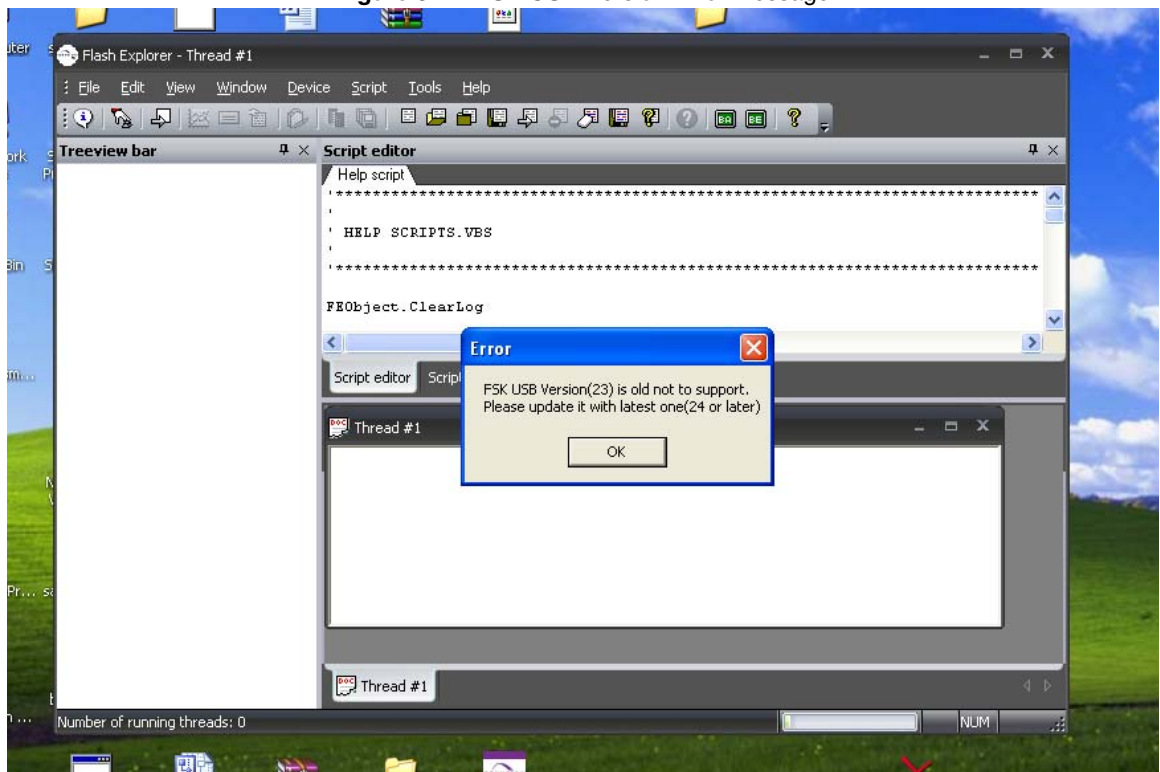
Figure 3.11 Expected Open Device Screen



Click 'OK' to dismiss the window.

Need for FSK-PUP Upgrade

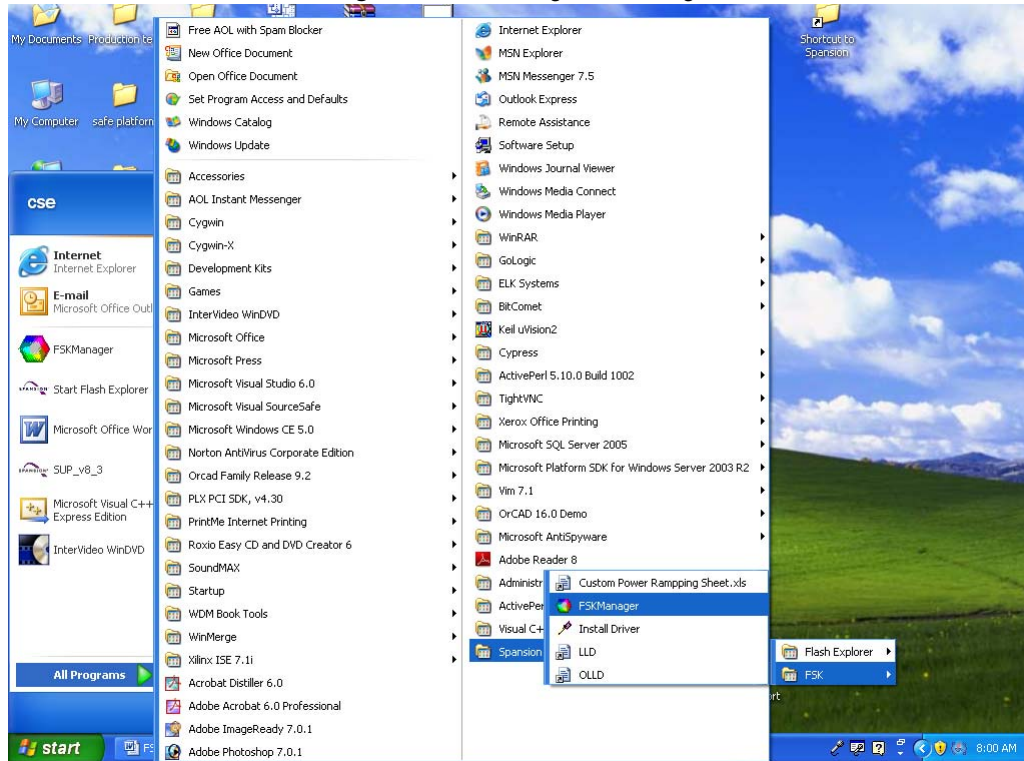
Figure 3.12 FSK USB Version Error Message



3.2.4 FSK-PUP Upgrade Procedure

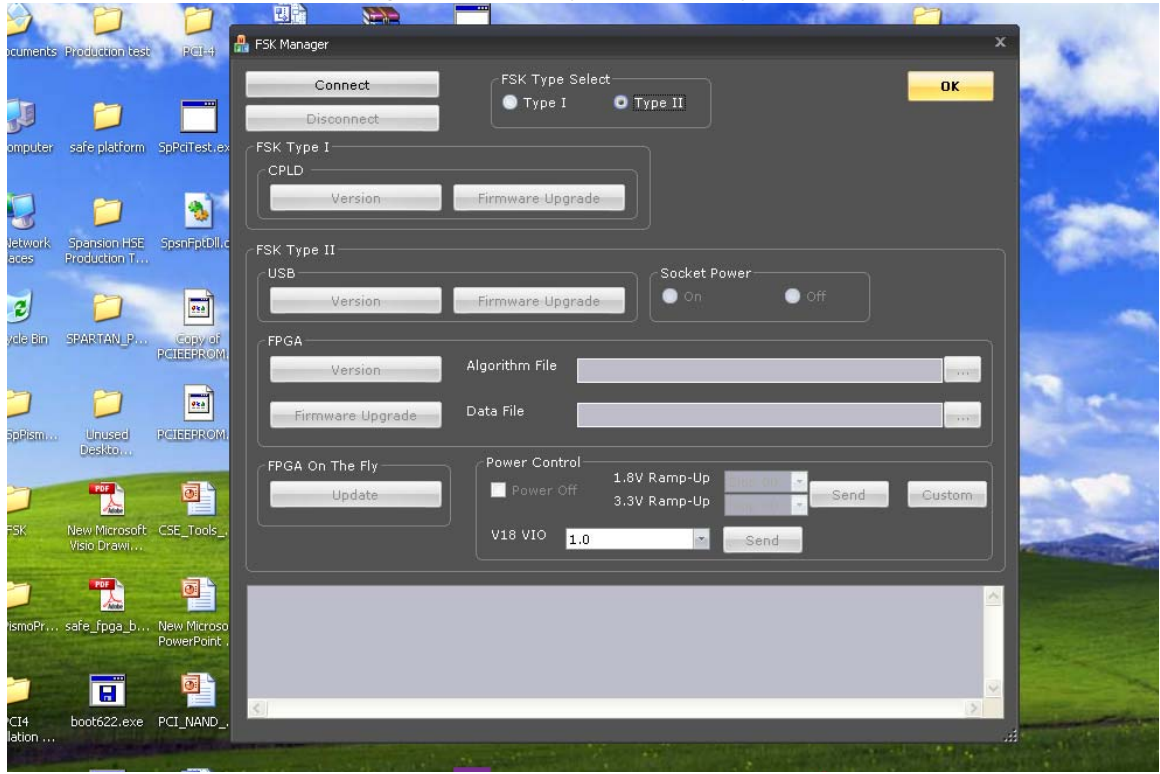
1. Click 'OK' to close the Error message and close the Flash Explorer.
2. To run the FSK Manager from the Start menu, do the following:
 Start > All Programs > Spansion > FSK > FSK Manager

Figure 3.13 Running FSK Manager



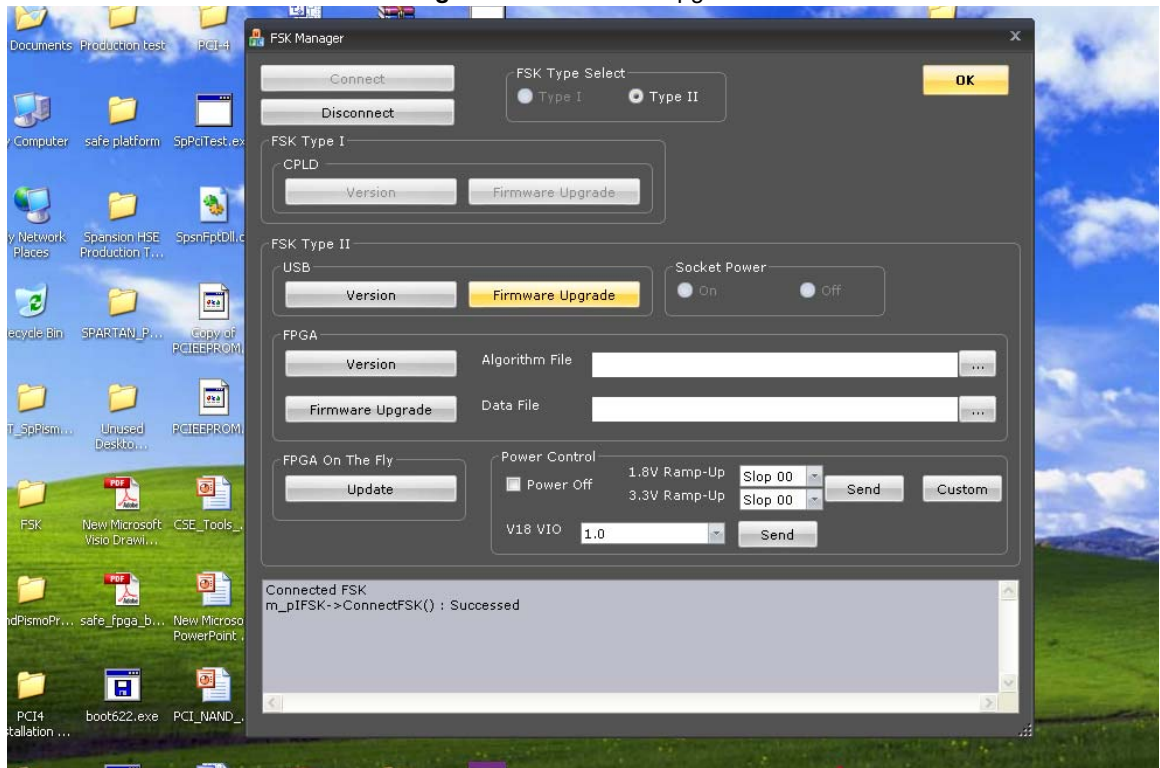
3. Select FSK Type Select 'Type II' and click 'Connect'.

Figure 3.14 FSK Type Selection 'Type II'



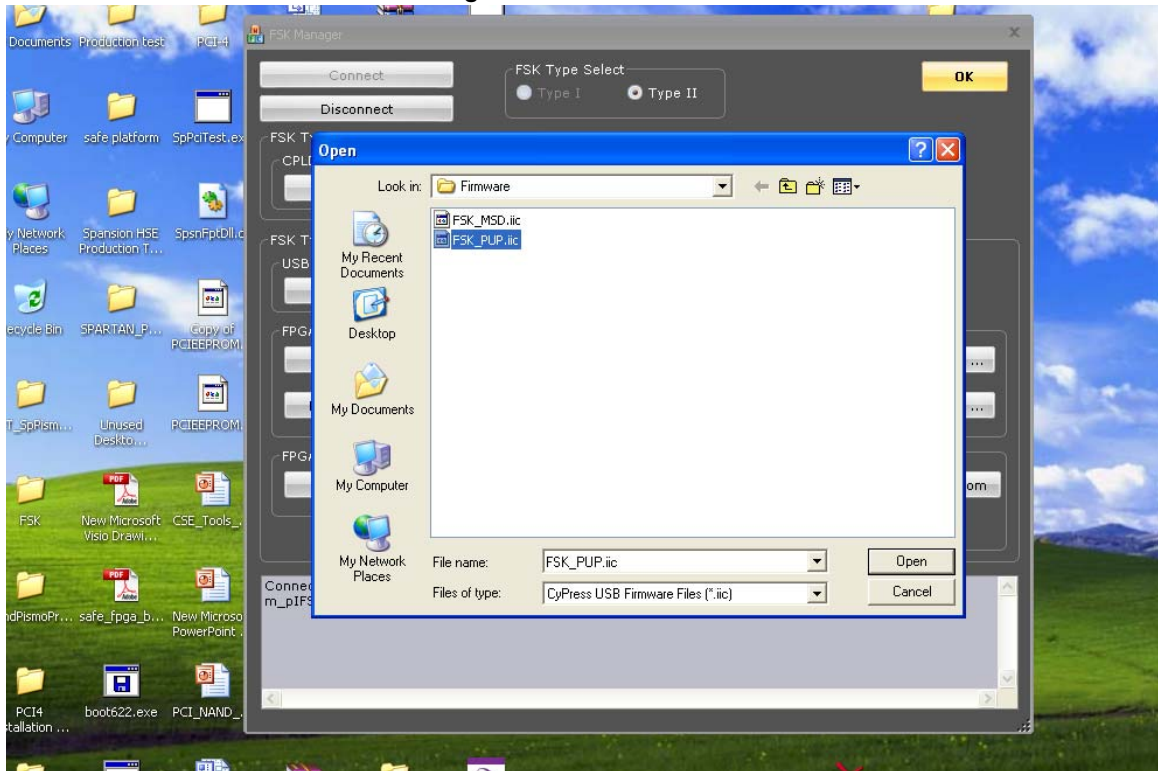
4. Click USB Firmware Upgrade

Figure 3.15 Firmware Upgrade



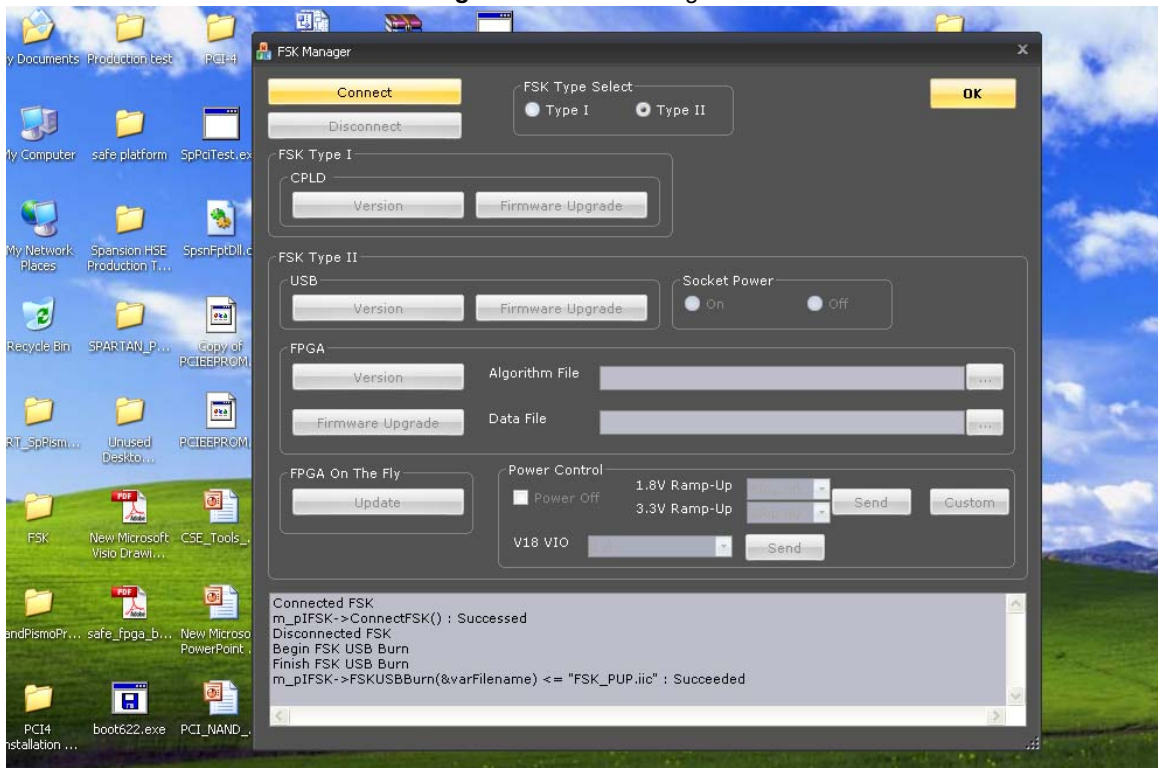
5. Select the FSK_PUP.iic and click 'Open'.

Figure 3.16 FSK_PUP.iic



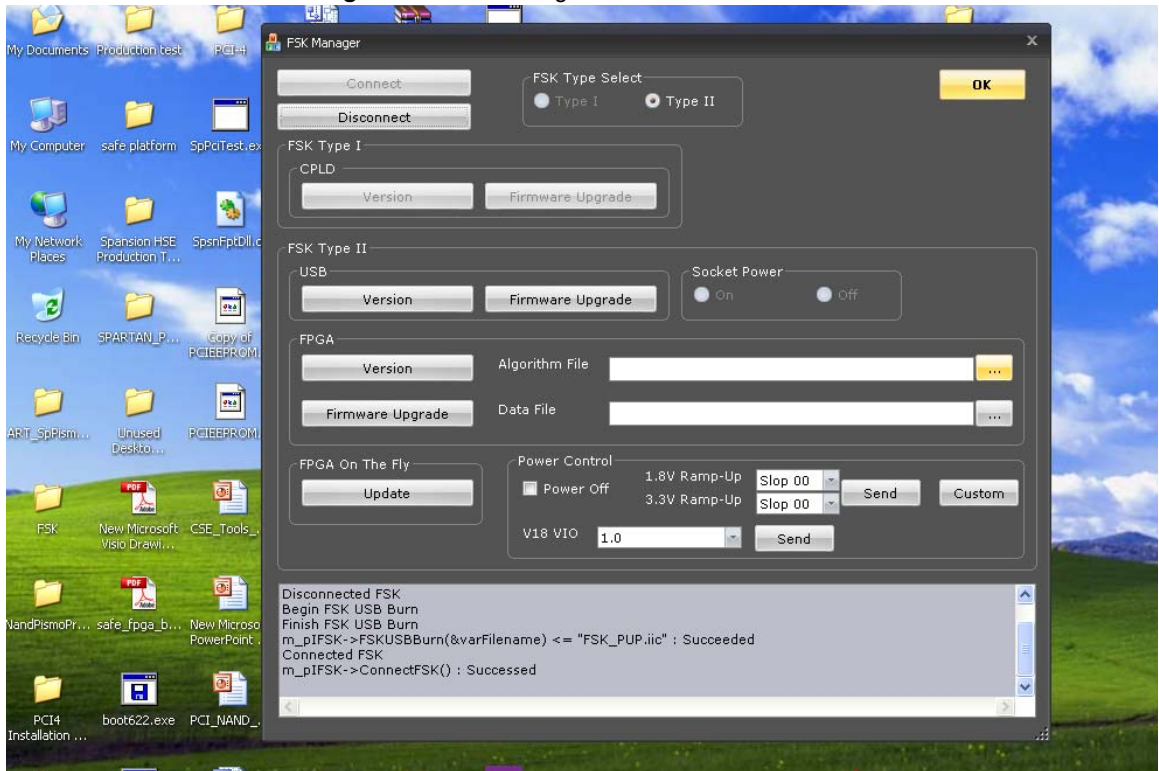
6. Select Connect again.

Figure 3.17 Connect Again



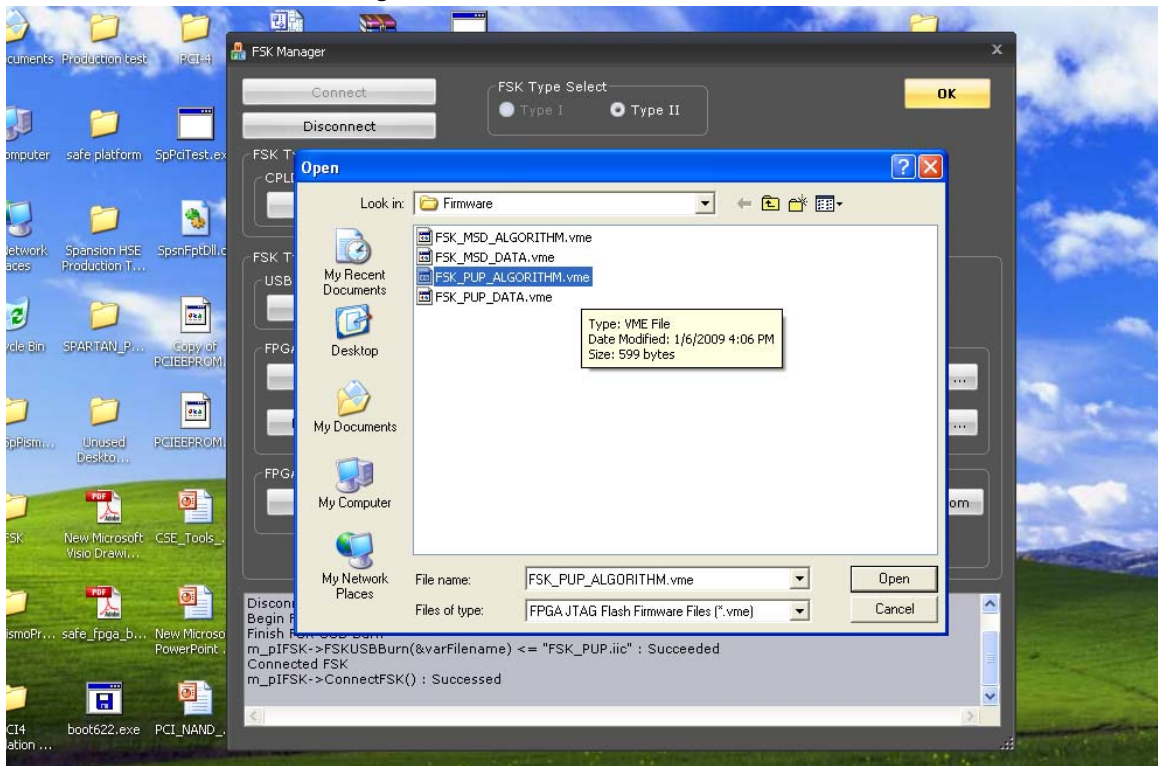
7. Click the browse button for the FPGA Algorithm File.

Figure 3.18 FPGA Algorithm File Browse Button



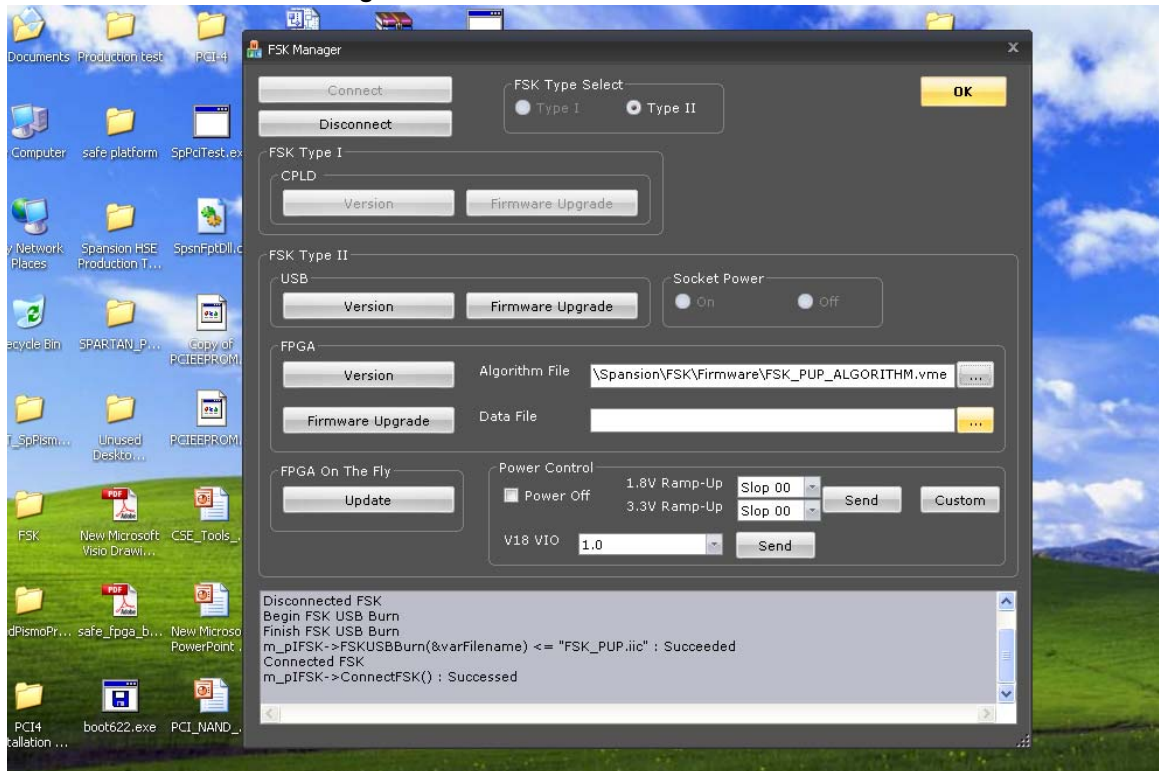
8. Select the file FSK_PUP_ALGORITHM.vme and click open.

Figure 3.19 FSK_PUP_ALGORITHM.vme



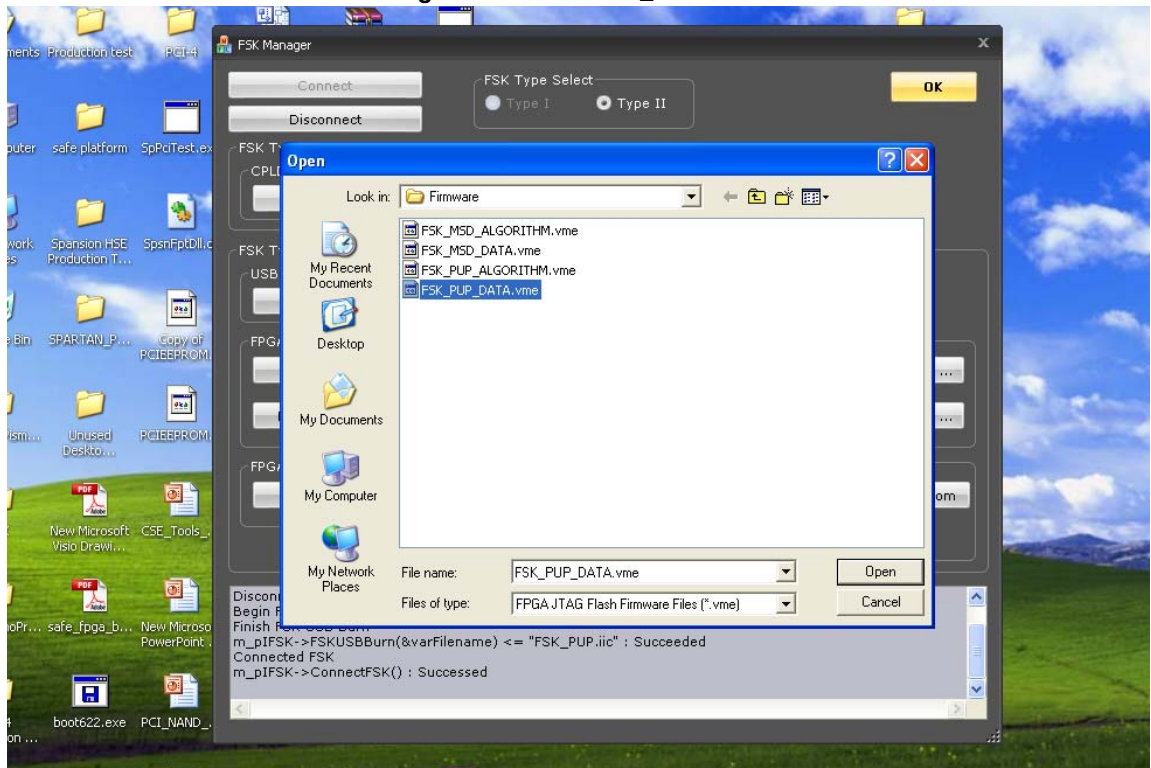
9. Click the browse button for the FPGA Data File.

Figure 3.20 FPGA_DATA File Browse Button



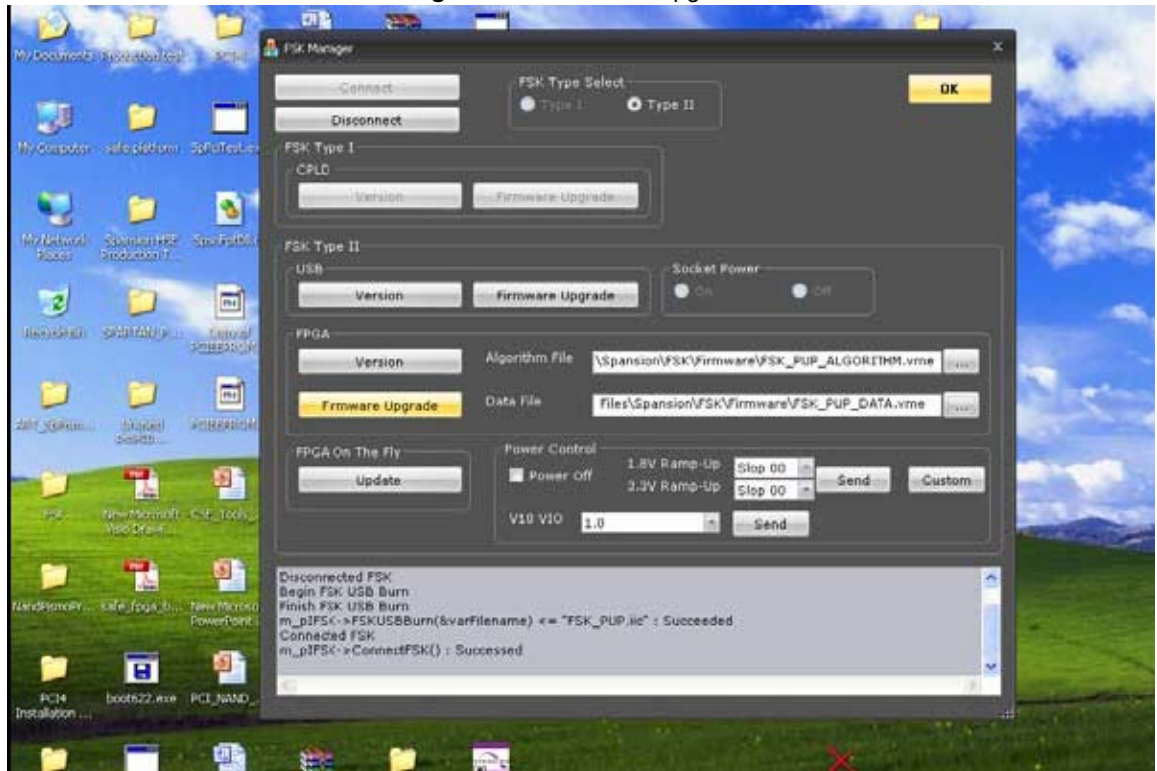
10. Select the file FSK_PUP_DATA.vme and click open.

Figure 3.21 FSK-PUP_DATA.vme



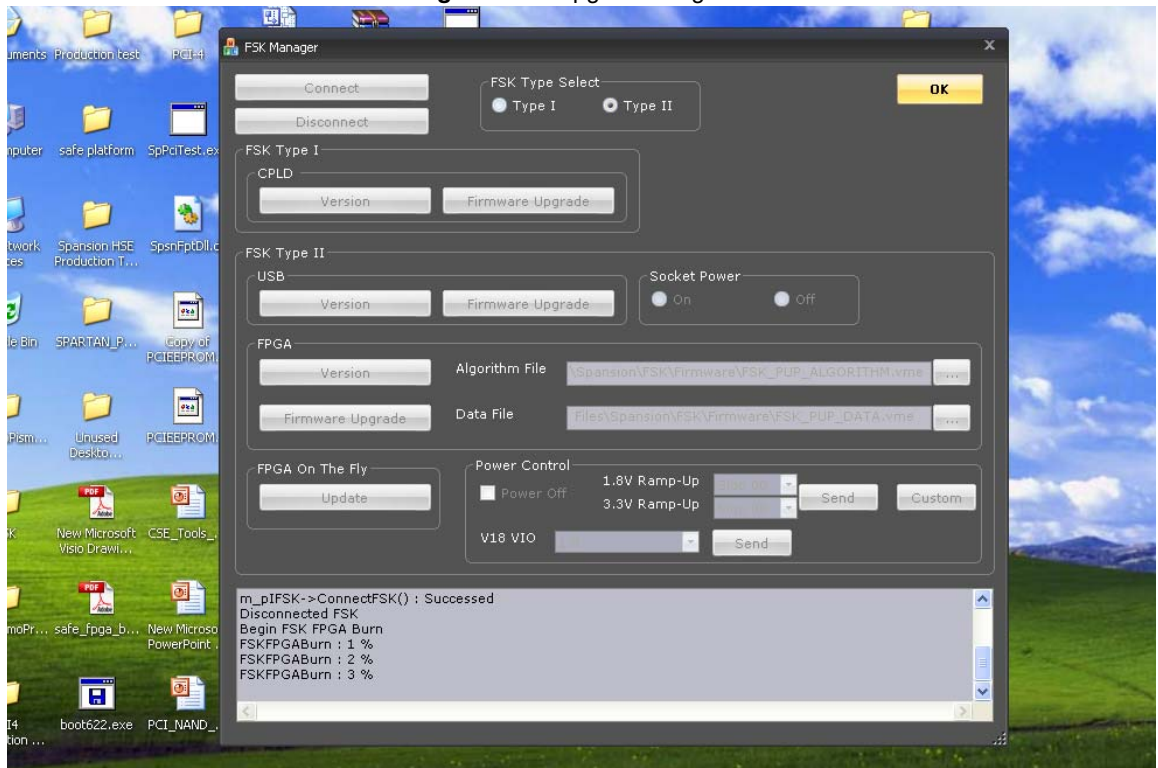
11. Click Firmware Upgrade.

Figure 3.22 Firmware Upgrade



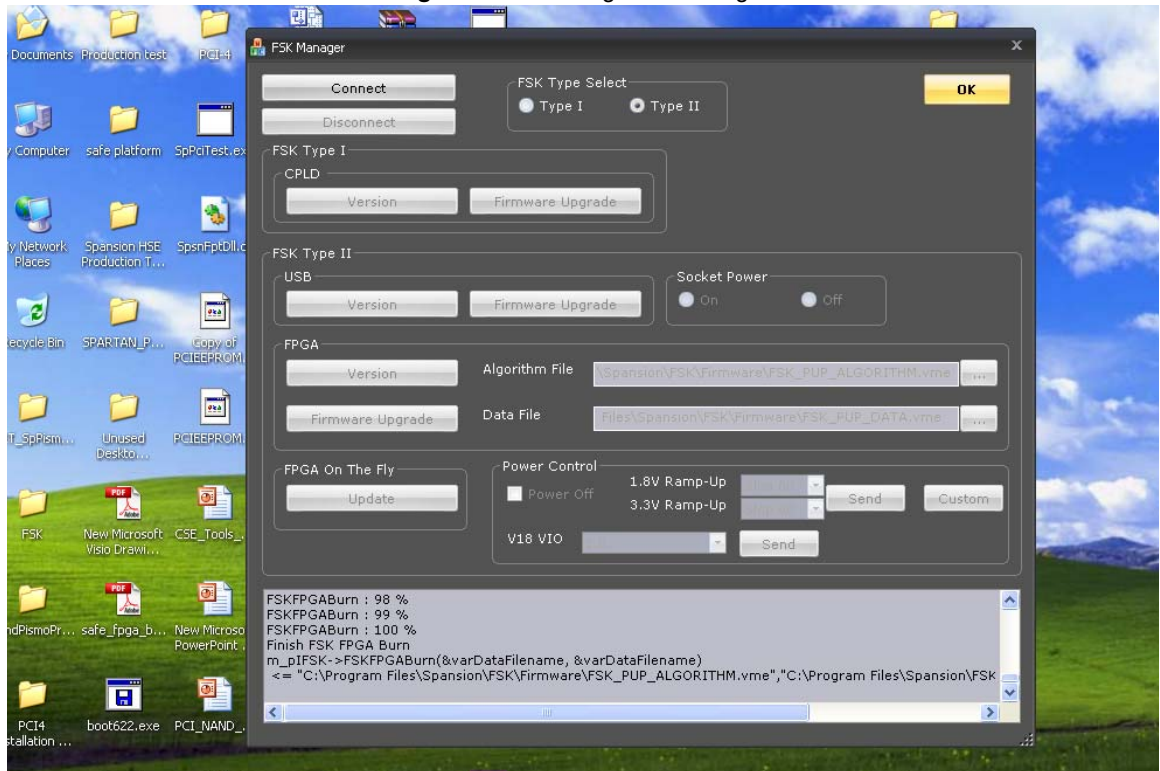
The FPGA upgrade will now begin. Expect progress to go from 1% to 100% twice.

Figure 3.23 Upgrade Progress



12. When the upgrade is completed click 'OK'.

Figure 3.24 Closing FSK Manager



Your FSK-PUP is now upgraded.

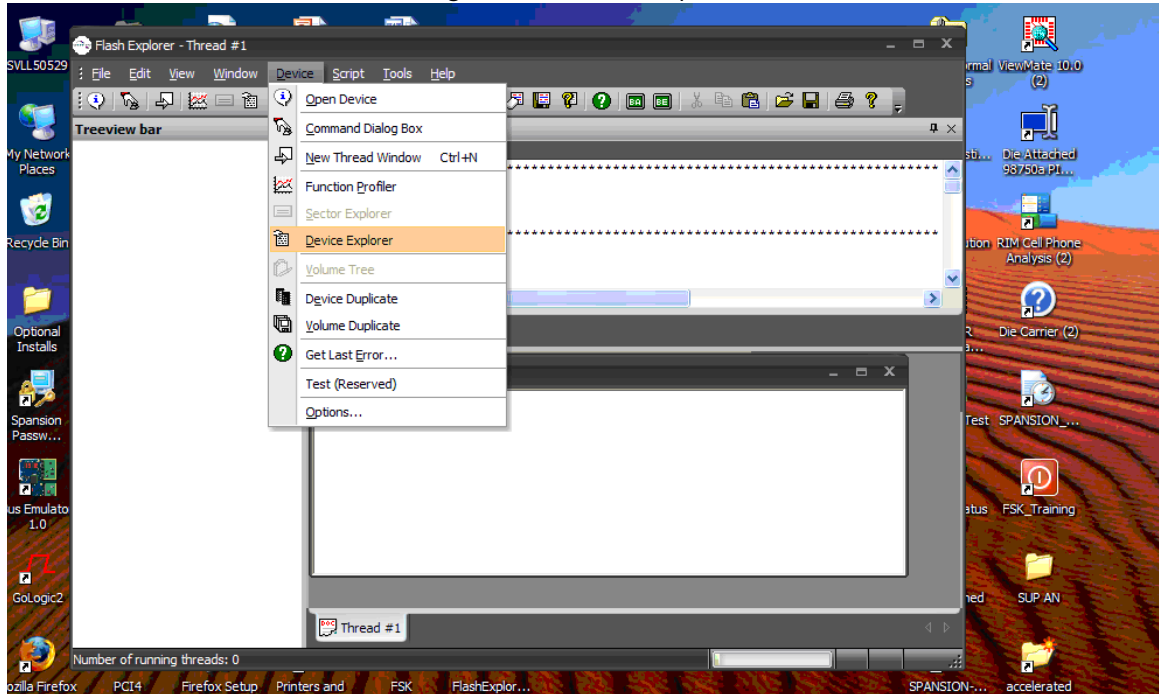
Disconnect and then reconnect the FSK-PUP USB cable.

Run Flash Explorer as normal.

3.2.5 View the Memory Contents

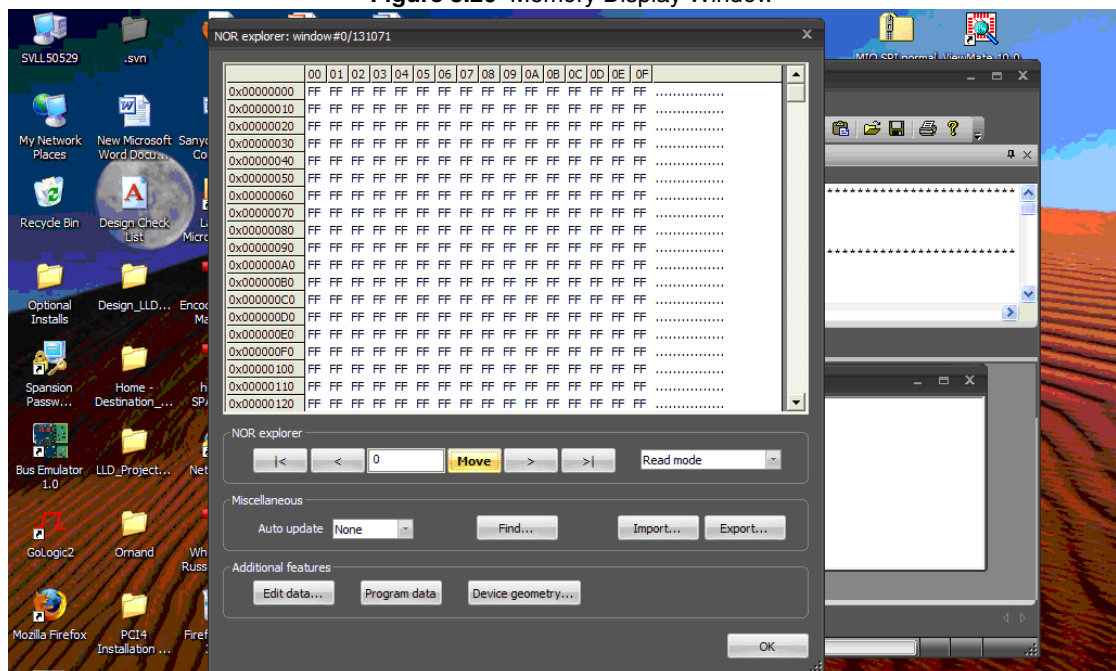
The NOR Explorer window will be used to display some of the memory device contents.
Click Device > Device Explorer

Figure 3.25 Device Explorer



The NOR Explorer window shows the contents of the Flash device. This window is good for quick manual operations with a memory device. In this case it reads the main memory. The memory is all 'FF'.

Figure 3.26 Memory Display Window



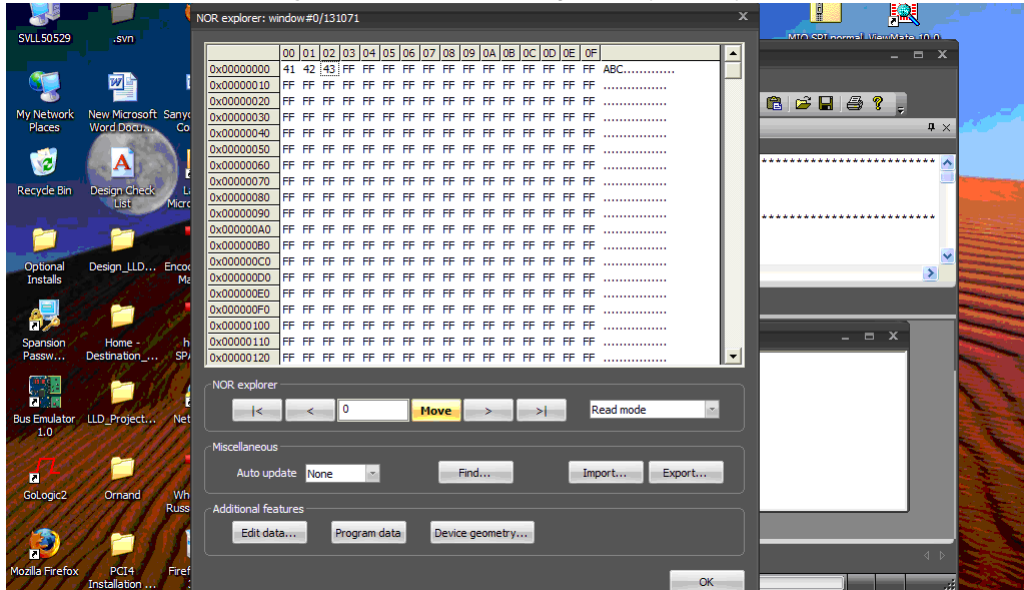
This window displays only a portion of the memory at a time. The slide bar on the right allows for scrolling through this portion. The number of bytes displayed in this window is adjustable as shown before in the section 'Open Device'.

3.2.6 Changing Memory Content

One way to change the contents of the Flash memory is to manually edit it. As shown in [Figure 3.27](#), the values at row 0x00000000 and columns 00, 01, 02 were changed from 'FF' to 41, 42, 43 respectively.

To change them, move the cursor over 'FF' in column 00 and click it. Then type '41' into it. Select and type into the next columns 01 and 02 the values 42 and 43 respectively.

Figure 3.27 Manual Editing Memory Display Window Data



Click 'OK'

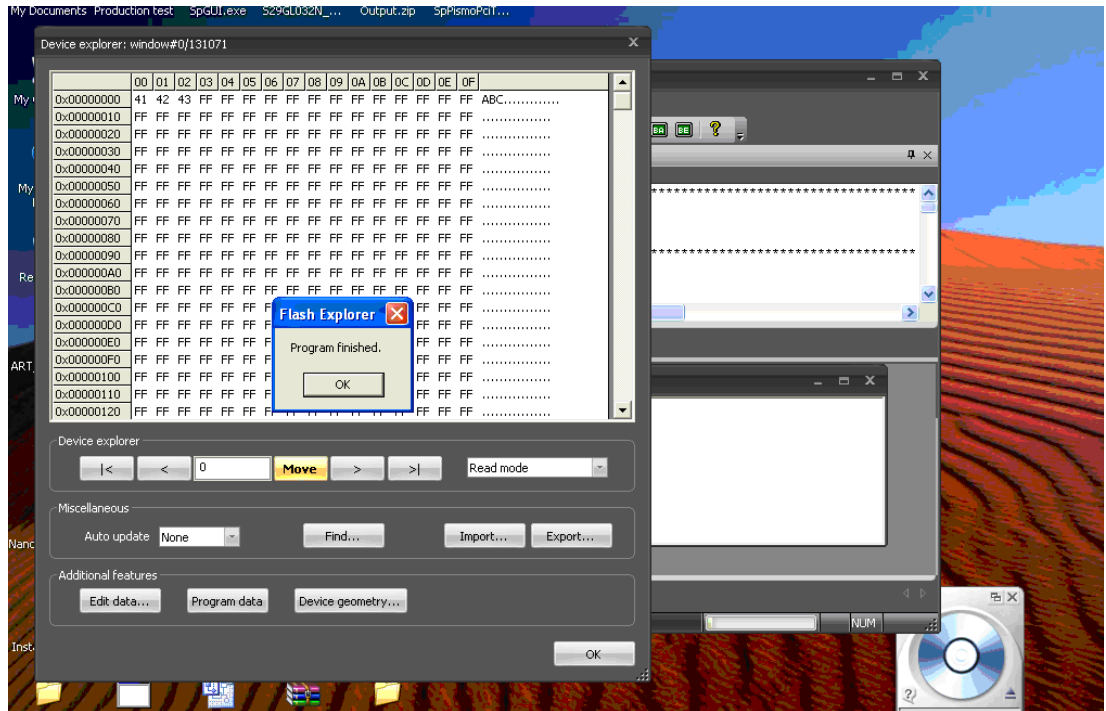
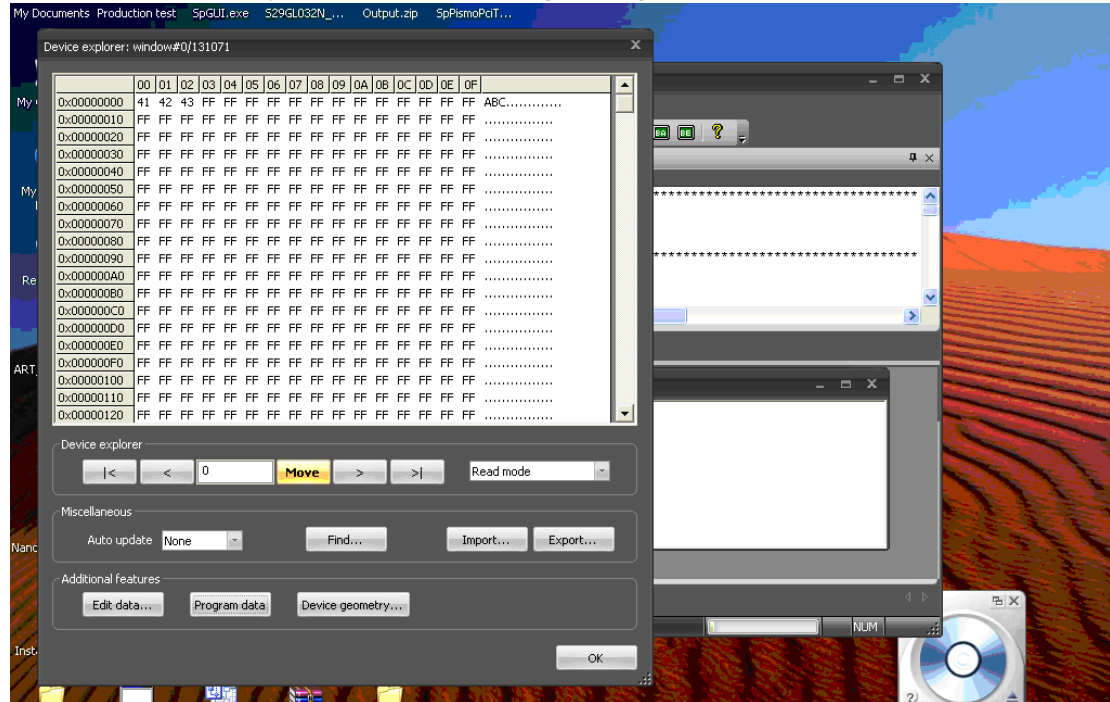


Figure 3.28 Completed Programming of Window Edits



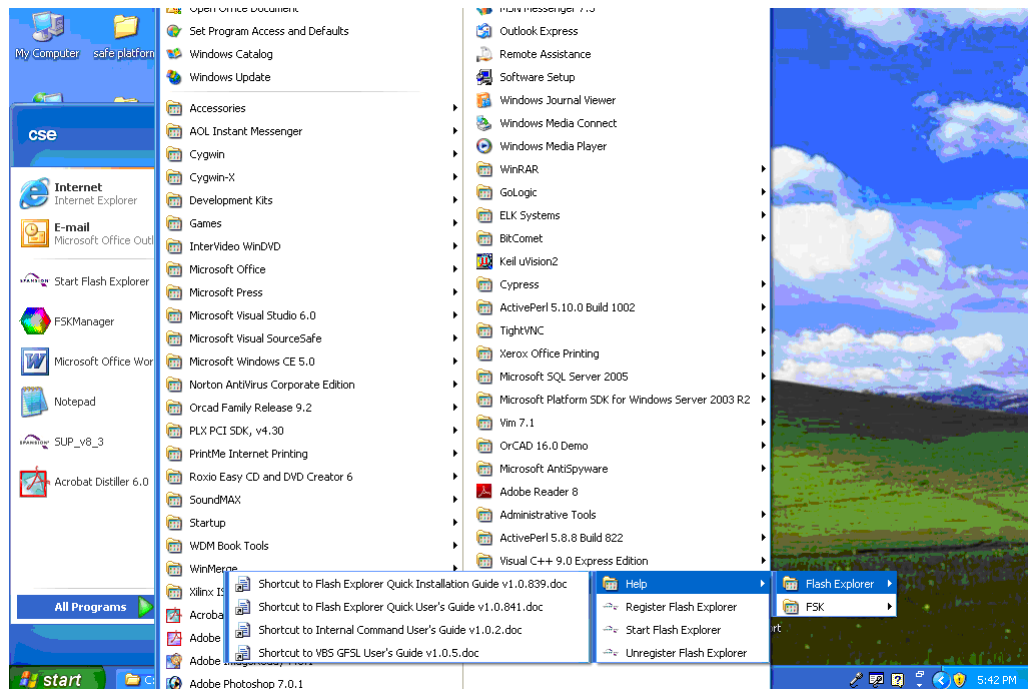
You can verify the programming of the data into the Flash by closing the Device Explorer window and reopening it.

4. Summary

Flash Explorer and FSK-PUP are capable of many more operations than were shown in this quick start guide.

To obtain more information on Flash Explorer see the documents shown in the following figure:

Start > All Programs > Spansion > Flash Explorer > Help > (additional information).



5. Revision History

Section	Description
Revision 01 (March 12, 2009)	
	Initial revision
Revision 02 (April 23, 2009)	
Start Flash Explorer	Added Section: FSK-PUP Upgrade Procedure

Colophon

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