Technical Note



Upgrading Synapse Cards

### Introduction

This technical note describes how to upgrade a Synapse card in a Synapse frame using a .spf file. This document is written for engineers, technicians, operators and other broadcasting employees that are responsible for the proper installation and/or operation of Synapse products. This technical note assumes familiarity with basic file management tasks and common interface and Internet activities, such as selecting menu options and clicking buttons or Internet links.

A Synapse card's function is determined by the hardware platform and the software application (a.k.a. firmware) that resides on the hardware platform. Changing the firmware of the card changes the way the card functions. To keep improving quality and to answer customer needs, Miranda occasionally releases new firmware revisions for Synapse cards. These revisions are formatted as one file for each revision, with a .spf extension.

This technical note contains the following topics:

- Installing Synapse Setup
- Launching Synapse Setup
- Choosing and Acquiring the .spf File
- Uploading the .spf File
- <u>Restoring Prior Settings</u>
- Errors During Upload

### Installing Synapse Setup

Before reprogramming or upgrading a Synapse card, the Synapse Setup software application must be installed on a PC or laptop connected to the same network that is connected to the Synapse frame. Before starting to upgrade, download and install Synapse Setup.

Follow these steps to download and install Synapse Setup:

- 1 Open an Internet browser and go to Miranda's website at http://www.miranda.com.
- 2 On the Miranda home page, click 'Library' and then 'Software'.
- 3 On the 'Software' page, click 'Synapse software'.
- 4 On the 'Synapse software' page, click 'Synapse Set-up (ZIP)'.

When the security dialog appears, click **Save**. A 'Save As' window opens in which you may select a location to download the file to a specific location. A progress dialog box appears showing the progress of the download. The file is approximately 6 megabytes.

The file name is 1154030652\_3816.f\_doc\_file.zip. Extract (or unzip) the file from this .zip file. That file is SynapseSetup\_v190.exe and it installs Synapse Setup.

5 Launch SynapseSetup\_v190.exe. Disregard any security warnings.

### Upgrading Synapse Cards

Installing Synapse Setup

6 On the 'Welcome' window, click Next:

🔁 Synapse Setup v1.90 - InstallShield Wizard				
	Welcome to the InstallShield Wizard for Synapse Setup v1.90			
	The InstallShield(R) Wizard will install Synapse Setup v1.90 on your computer. To continue, click Next.			
2	WARNING: This program is protected by copyright law and international treaties.			
	< Back Cancel			

Figure 1-1. Welcome Window

7 On the 'License Agreement' window, select the 'I accept the terms in the license agreement' radio button and then click **Next**.

License Agreement		
Please read the following license agree	ment carefully.	
Legal Notice		-
COPYRIGHT © 2001-2006 AXON DIGITAL THIS DOCUMENT AND THE ACCOMPANYI	DESIGN B.V. ALL RIGHT NG SOFTWARE ARE COP	S RESERVED PY RIGHTED MATERIALS.
MAKING UNAUTHORIZED COPIES IS NOT DOCUMENTATION MAY BE REPRODUCED PERMISSION OF AXON DIGITAL DESIGN E	ALLOWED. NO PART OF OR TRANSCRIBED WITH 9.V.	THE SOFTWARE OR
JNLESS OTHERWISE PROVIDED BY WRIT 3.V., THIS SOFTWARE AND DOCUMENTA DE ANY KIND EITHER EXPRESS OR IMPLIE	TEN AGREEMENT WITH A TION ARE PROVIDED "AS ED. THE ENTIRE RISK ARIS	XON DIGITAL DESIGN SIS" WITHOUT WARRANTY SING OLIT OF THE LISE OR
I accept the terms in the license agree	ment	
$\bigcirc$ I <u>d</u> o not accept the terms in the license	e agreement	
stallShield		

Figure 1-2. License Agreement Window

8 On the 'Ready to Install the Program' window, click **Install**. The window displays the location where the program will be installed.

Synapse Setup v1.90 - InstallShield Wizard	x
Ready to Install the Program The wizard is ready to begin installation.	
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard. Current Settings:	
Setup Type:	
Typical	
Destination Folder:	
C:\Program Files\Axon Digital Design\SynapseSetup_v190\	
User Information:	
Name: John Doe	
Company: NVISION	
talishield	
< Back Install Cancel	

Figure 1-3. Ready to Install the Program Window

#### Upgrading Synapse Cards

Launching Synapse Setup

Click **Next**. A progress indicator briefly appears. When the installation is complete (after a few seconds), the 'InstallShield Wizard Complete' window appears.

9 On the 'InstallShield Wizard Complete' window, click **Finish** to close the InstallShield Wizard. Installation is complete.

(Optional) Synapse Setup can launch automatically. To prevent that, uncheck the 'Launch the program' check box.



Figure 1-4. InstallShield Wizard Complete Window.

## Launching Synapse Setup

To launch Synapse Setup, use the Windows Start menu:

```
Programs > axon digital design > synapse setup v1.90 > SynapseSetupv190.exe'
```

Or

Double-click the desktop shortcut.



# Choosing and Acquiring the .spf File

Not all .spf files are compatible with all hardware platforms. To ensure that a compatible .spf file is selected, you must know the hardware revision of the card being upgraded.

Follow these steps to locate the card revision number:

- 1 Launch Synapse Setup.
- 2 From the left-hand pane, double-click on the frame containing the card to be upgraded. Properties for the selected frame appear in the center pane, as shown in Figure 1-5.

🗲 SynapseSetUp - Release 1.82
File Network Card Configuration Alarms View Debug Help
Synapse Network View RRS18 (MC Demo Kit 2) / Frame 192.168.7.233 - Slot 0
Frame / Slot Card Label User Label Status Property Value
X IS2.168.7.233 HHS18 MC Demo Kit2 Connected     X ISettings     X Settings     X Status     X Files

Figure 1-5. Synapse Setup Window—Properties for Selected Frame

3 Click the [+] next to 'Identity' to expand the list, as shown in Figure 1-6.

Prior Network         Card Configuration         Alarms         View         RRS18 (MC Demo Kit 2) / Frame 192.168.7.233 - Slot 0           Synapse Network View         Frame / Slot         Card Label         User Label         Status         Property         Value           ± 192.168.7.233         RRS18         MC Demo Kit 2 Connected         = Identity         Card name         RRS18
Synapse Network View         RRS18 (MC Demo Kit 2) / Frame 192.168.7.233 - Slot 0           Frame / Slot         Card Label         User Label         Status         Property         Value           192.168.7.233         RRS18         MC Demo Kit 2         Connected         Identity           Card name         RRS18
Frame / Slot         Card Label         User Label         Status         Property         Value           192.168.7.233         RRS18         MC Demo Kit 2 Connected         Identity         Identity           Card name         RRS18         RRS18
192.168.7.233 RRS18 MC Demo Kit 2 Connected Card name RRS18
Card name RRS18
User label MC Demo Kit 2
Card description Rack Controller
Software rev 0900
Hardware rev 0100
Product code 9410070001
Serial number 001727
Card ID 4F00000AF1692601
<u> </u>
<b>★</b> Status
<u>.</u> ≝ Events
* Files

Figure 1-6. Synapse Setup Window—Identity Property Expanded

4 On the 'Hardware rev' line, note the hardware revision number listed.

Note

If you do not see your card's revision number listed, contact Miranda Technical Support.

5 Contact Miranda Technical Support and request a .spf file for your card.

## Uploading the .spf File

Before upgrading a card, it is recommended that you copy any settings to the clipboard. After a card is upgraded, the card resets to factory default settings. This means that the settings selected before the upgrade are overwritten.

During the upgrade process, the card stops functioning for a period of time. Make sure the card being upgraded is currently not being used by anyone in your company. Also, after the upgrade the original settings are not yet restored and the card might not function as it did before the upgrade. For information on restoring settings, see <u>Restoring Prior Settings</u> on page 7.

Follow these steps to upgrade the card:

Important! Make sure the card is not in use before starting the upgrade process.

- 1 Launch Synapse Setup.
- 2 (Recommended) Copy the current card settings to the clipboard:

From the left-hand pane, double-click on the frame (for example, RRC18, RRS18, RRC08, RRS08, RRC04 or RRS04) containing the card you want to upgrade. Properties for the card appear in the center pane, as shown in Figure 1-7.

5 SynapseSetUp	- Release 1.82						
File Network Car	d Configuration A	Alarms View Deb	ug Help				
						A	
Synapse Networ	'k View			RRS18 (MC Dem	o Kit 2) / Frame 192.168.7.233	I-Slot 0	
Frame / Slot	Card Label	User Label	Status	Property	Value		
± 192.168.7.233	RRS18	MC Demo Kit 2	Connected	Identity			
				+ Settings			
				+ Status			
				+ Events			
				+ Files			

Figure 1-7. Synapse Setup Window—Properties for Selected Frame

From the menu bar, select 'Card > Copy Card to Clipboard'. An exact copy of the card's setting is placed on the clipboard (left-hand pane) for future use, as shown in Figure 1-8.

Alarms View Deb	ug Help				
			- X		1 <u>X</u>
		RRS18 (MC Demo Kit 2) / Fi	rame 192.168.7.233 - Slot 0	Copy From: RRS18 (MC	C Demo Kit 2) / Frame 19
User Label	Status	Property	Value	Property	Value
MC Demo Kit 2	2 Connected	_ Identity		. + Identity	
	10	+  Settings		+ Settings	
		+1 Status		🛨 Status	
		at Events		+ Events	
				+ Files	
		± Files			

Figure 1-8. Synapse Setup Window—Properties Copied to Clipboard

### Upgrading Synapse Cards

Uploading the .spf File

3 From the center pane, click the [+] next to 'Files' to expand the list. All currently installed .spf files display (for an SFR04 and SFR08 the list is shorter than presented in the example), as shown in Figure 1-9.

82						
ion	Alarms View Debu	ıg Help				
_			( <u></u>		4	<u>×</u>
<i>7</i>	1		RRS18 (MC Demo Kit	2) / Frame 192.168.7.233 - Slot U	Copy From: RRS	(18 (MC Demo Kit 2) / Frame 19
1	User Label	Status	Property	Value	Property	Value
	MC Demo Kit 2	Connected	∃ Identity		+ Identity	
			<u> </u>		+ Settings	
			<u></u>		+ Status + Events	
			<u></u> Events		+ Files	
			E Files			
			Micro Firmware	0 Fragments		
			Parameter Table	1 Fragments		
			SPFS1	0 Fragments		
			SPFS2	0 Fragments		
			SPFS3	0 Fragments		
			SPFS4	0 Fragments		
			SPFS5	0 Fragments		
			SPFS6	0 Fragments		
			SPFS7	0 Fragments		
			SPFS8	0 Fragments		
			SPFS9	0 Fragments		
			SPFS10	0 Fragments		
			SPFS11	0 Fragments		
			SPFS12	0 Fragments		
			SPFS13	0 Fragments		
			SPFS14	0 Fragments		
			SPFS15	0 Fragments		
			SPFS16	0 Fragments		
			SPFS17	0 Fragments		
			SPFS18	0 Fragments		

Figure 1-9. Synapse Setup Window - Files Property Expanded

4 Each SPF listed represents a slot number in the frame. Double-click on the SPF's slot number for the card you want to upgrade. The 'SPF Upload Dialog' window appears, as shown in Figure 1-10.

SPF Upload Dialog		
Upload SPF File		
SPF File:		Open File
Status:		
Progress:	0%	Start
		Close

Figure 1-10. SPF Upload Dialog Window

5 Click Open File. The 'Browse' window appears.

On the 'Browse' window, locate and select the .spf file you want to upload and then click **Open**. The file name appears in the 'SPF File' field on the 'SPF Upload Dialog' window.

6 Click **Start** to start the upload process. The 'Status' field displays "Uploading SPF" and the 'Progress' field displays a progress bar and percentages indicating how much of the upload is complete.

It can take up to 10 minutes to complete the upload procedure. The time depends on the card being upgraded. When uploading is complete, the 'Status' field displays "Ready programming Card!" and the 'Progress' field displays "100%", as shown in Figure 1-11.

SPF Upload Di	ialog	
Upload SPF	File	
SPF File:	klDesktop\SIM21-0100to0103.spf	Open File
Status:	Ready Programming Card 1	
Progress:	100%	Start
		Close

Figure 1-11. SPF Upload Dialog Window - Upload Complete

- 7 Click Close to close the 'SPF Upload Dialog' window.
- 8 To verify that the card is functioning properly, reset the card manually by pulling it out of the frame and putting it back into the frame. The card should be recognized with the correct card name, indicating that the firmware upgrade has been successful.

Note

It is strongly recommended that you test the card's functioning before putting it into real on-air use.

### **Restoring Prior Settings**

When an upgrade is successful, the card has factory default settings applied. You can restore the settings to what they were before the upgrade by using the settings previously copied to the clipboard. (See <u>Uploading</u> the .spf File on page 5.)

Prior settings can be applied to a card in two ways: copied from the clipboard or entered manually. If the menu for the card has not changed, simply paste the settings from the clipboard to the card. (For instructions, see the proceeding procedure.) If the settings for the new card differ from the old settings, then settings must be changed manually using the information from the corresponding settings listed in the clipboard. For instructions on applying settings manually, see the Synapse Setup online Help.

Follow these steps to paste files from the clipboard to an upgraded card:

- 1 Launch Synapse Setup.
- 2 From the menu bar, select 'Card > Paste Clipboard to Card'.
- 3 On the confirmation dialog box, click Yes. The settings are copied to the card.
- 4 On the 'Ready Updating Card' dialog box, click **OK**. The settings are copied and applied to the card.

Errors During Upload

## Errors During Upload

When an error occurs during upload, the bar in the 'Progress' field ceases to grow and the 'Status' field displays an error message on a red background, as shown in Figure 2.

SPF File:	NDesktop\SIM21-0100to0103.spf	Open File
Status:	SPF and Identity Card mismatch	
Progress:	0%	Start

Figure 2. SPF Upload Dialog Window - Critical Error Message

Errors might occur because a .spf file selected for upload is not compatible with the selected card's hardware, or because of a lost connection, heavy network load, or a defective card. In these instances, either restart the upload process or contact Miranda Technical Support.

In certain instances, the 'Broadcast' setting in the selected frame menu is set to "Off." This causes the 'Status' field in the 'SPF Upload Dialog' window to display "SPF Status unknown (status wait time out)" with a yellow background, as shown in Figure 3.

SPF Upload D	ialog File	
SPF File:	JDesktop\SIM21-0100to0103.spf	Open File
Status:	SPF Status unknown	
Progress:	100%	Start
		Close

Figure 3. SPF Upload Dialog Window - Non-critical Error Message

This is a non-critical message. The firmware will upload and function properly.