

Quick Programming Guide SuperPro[®] 7100 Programmer

PC Mode of Operation

Programmer is connected to a PC via USB port and all operation is performed through the PC. This mode is used for engineering and development as well as small volume production.

- 1. Connect programmer to PC via the provided USB cable.
- 2. Power on the programmer, and wait for a few seconds.
- 3. Double click **SuperPro® 7100** icon from the desktop to open the software.
- 4. Click the "**Device**" to select preferred chip manufacturer (e.g. Gainspan) and device name (e.g. GS2011MIE). Click "OK".
- 5. Click Dev. Info as shown below to see special information about the Gainspan module



Special Information

Note:

- There might be maxium of 4 hex files to be programmed into chip, user need to load file one time for each file. There are four buffers to store user hex files: Super Block, Working Version, Previous Version, Factory Version.
- Click Device->Dev.Config to select the number of firmware to be programmed.
- 3) Two verify method provided, Verify_Full checks the whole chip and takes more time while Verify_Partial checks part of each firmware and is fast.
- 4) MAC address is displayed in Config Word.

6. Setting number of sockets to be used:

Click Device->Operation option and select the number of sockets you plan to use for programming. In this example, we are using only 3 sockets.

_	Operation Option	×
General Buffer Auto.Inc Count	Basic Settings ✓ Pins Check Remove interval(s) 4 Insert interval(s) 2 Verify mode Unit Setting ④ Once with Vcc ✓ SKT1 ✓ SKT2 ○ Twice with Vcc+-%5 ○ Twice with Vcc+-%10 ✓ SKT3	
L	p	OK Cancel

7. Setting number of files to be used:

Click "Dev. Config" icon as shown below for selecting the number of files to be programmed.

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X			SUPERPRO 7100(Online Mode	2)
File(F) Project(P) Device(D) Pro	grammer(O) Option(O)	(T) Window(W) Help(H)		
卢 • 🔚 📴 • 🎲	<u>)</u> Z 🖋 (- 🥰	🗣 🔀 🦃 😹	· 🔒 🎯 🔗	
🔀 Auto	\smile		Configure Word	×
🔀 Program		Page0		
🔀 Read				
🔀 Verify_Full		MAC Addr_STK1	00	00
🔀 Verify_Partial			00	00
🔀 BlankCheck		MAC Addr_STK2	00	00
🔀 Erase			00	00
🔀 MAC_Read		MAC Addr_STK3	00	00
🔀 Cancel		MAC Addr. STK4	00	00
		MAC Add_STR	00	00
			00	00
	Device Info			
	Manufacturer: GainSpan	- FirmWare, Select		
	Package: PIN49	O CURRENT VERSION		
		OCURRENT_PREVIOUS	VERSION	
	Buffer Info	CURRENT_PREVIOUS	FACTORY VERS	
	Name Size			
	Super Block 7000H*			
	Provious Vor 78000H			
				OK Cancel
	File Info			

If all files (current version, previous version and factory versions) need to be programmed then do the selection as shown in above screenshot.

8. Loading multiple files:

Load file by clicking File->Load File, and browse to the hex file (e.g. superblock_4MB_3_Copy.bin) which should be loaded in Super Block Buffer as shown below:

	Load File	x		
Buffer:	Super Block 🗸			
File Name:	C:\Users\frys\Desktop\Gainspan final file			
File Type:	Binary V			
Load mode:	Normal V			
Buffer offset:	0			
File offset:	0			
Buffer clear on data load FF				
OK Cancel				

Click OK.

Load the second file (e.g. Current Version Single Image.bin) in current version buffer as shown below:

Load File				
Buffer: Cur	rrent Versic 👻	2		
File Name: AG	ES\Current Versio	on Single Image.bin		
File Type:	Binary	¥		
Load mode:	Normal	~		
Buffer offset:	0]		
File offset:	0]		
Buffer clear on data load FF				
OK Cancel				

Click OK.

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Tip: You may click Device->Buffer and double check if all files are loaded correctly in the 4 buffers:

	Buffer			
Super Block Current Version Previous Version Factory Version	ADDRESS HEX ASCII 000000000 66 6C 6F 6B 00 20 00 00-00 60 00 00 00 00 10kk 1			
	Current Address: 0 h Checksum: 0x6DC4D6 h Start Address: 0 h End Address: 6FFF h Locate Fill Copy Search Search Next Radix Swap			
OK Cancel				

9. Setting up Batch Command:

Click Device->Edit Auto and select the operations from function list which you want in auto (batch) command. In this example, we added erase, blank check, program, verify_full to Auto. (Verify_partial is recommended in place of verify_full for faster verify)

	Edit Auto	×
Function List:		Auto:
Program Read Verify_Full Verify_Partial BlankCheck Erase MAC_Read	Add Remove Remove All Upward Downward Reset	Erase BlankCheck Program Verify_Full
	OK Cancel	
Erase when Blank Che	eck fails	Slow

10. Executing Batch (Auto) Command

To erase, blank check , program and verify the chip, just click



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Tip: For mass production, you may turn on the "production mode" as shown below which will automatically detect insertion of the chips in the socket:



11. Saving Project file for future use:

With above settings and production mode turned on, please save the project file:

Click project-> Save project

In this example, we are naming this project file as GS2011.prj



Tip: Next time, just load GS2011.prj file by clicking project->Load Project and all the setting, buffer file, device selection settings will be restored.

Standalone Mode of operation

Superpro 7100 programmer comes with a SD card. Project file (*.prj) can be loaded on SD card and programmer can operate in standalone mode (without PC).

All operations are performed through the attached keypad and display. Prior to operating in stand-alone mode, relevant programming data and information has to be downloaded into the SD card. Device programming algorithm, user data, device configuration, Auto' programming sequence, etc. are conveniently combined into a project file for download, making the user operation simple. The SD card can store multiple project files so long as the memory space allows. This mode is used for volume production operation.

Before proceeding further, please make sure that SD card is inserted in the programmer. Following are the steps to set and operate Superpro 7100 in standalone mode:

Manage Project				
Project	Manufacturer	Device	Size(Byte)	
<			>	
Send Project Delete Project				
	ОК	Cancel		

1) Click Project->Manage Project and following window will pop up:

Click Send project as shown above and select the project file which should be downloaded on SD card.

8	Open			X
🔄 🏵 👻 🛧 🔳 Desktop	¥	Ç	Search Desktop	Q
Organize 🔻 New folder				
Favorites Construction Favorites Fa	12069-3061-01 REV A.prj PRJ File 65.1 KB			^
 iCloud Photos Recent places iCloud Drive 	Chirag - Shortcut Shortcut 1.13 KB			
a OneDrive	GS2011.prj PRJ File 1.63 MK			
🜏 Homegroup	Shared on Server (SERVER) - Shortcut Shortcut			
INIS PC INIT Chirag@xeltek.co INIT Desktop ✓	Superpro_525-1024-01 REV A.prj PRJ File 139 KB			~
File nam	e:	¥	Project files (*.prj) Open Car	ncel

"Download OK" message will be displayed on programmer LCD screen after successful

- 2) Turn off the programmer and disconnect USB cable. Turn the programmer ON and wait till you hear a beep sound.
- 3) Now press down arrow \downarrow on the keypad and programmer will enter standalone mode.
- 4) Press \downarrow again until "Select Project" is displayed on the LCD screen



5) Press "Enter" and when you see GS2011.prj on the screen, press Enter again



6) Press "个" until you see "RUN" and then press enter again when you see "Auto" on the LCD screen.





7) Press Enter and wait for successful programming. Remove the programmed modules after you hear beep sound.

LCD Menu:



Contact <u>techsupport@xeltek.com</u> for further assistance.

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