JARLTECH

ISO 9001 Certified
Lead with technology
Win customers with service

Touch POS System

SERIES 8802

OPERATION MANUAL

Table of Contents:

CHAPTER 1 SpecificationIntroduction

Preview

Jarltech is defining the New Age of POS with its integrated TouchPOS. The 8802 is designed on NB base with Intel Celeron M processor 1.5 GHz, One slot of DDR DIMM memory max up to 1GB; 12.1" TFT-LCD with resistive touch screen; built-in VGA, LAN chip, Internal IDE Hard disk (20GB or above); includes Magnetic card reader and 20X2 customer VFD display, XGA 1024 x 768 Resolution, wireless 802.11 b/g.

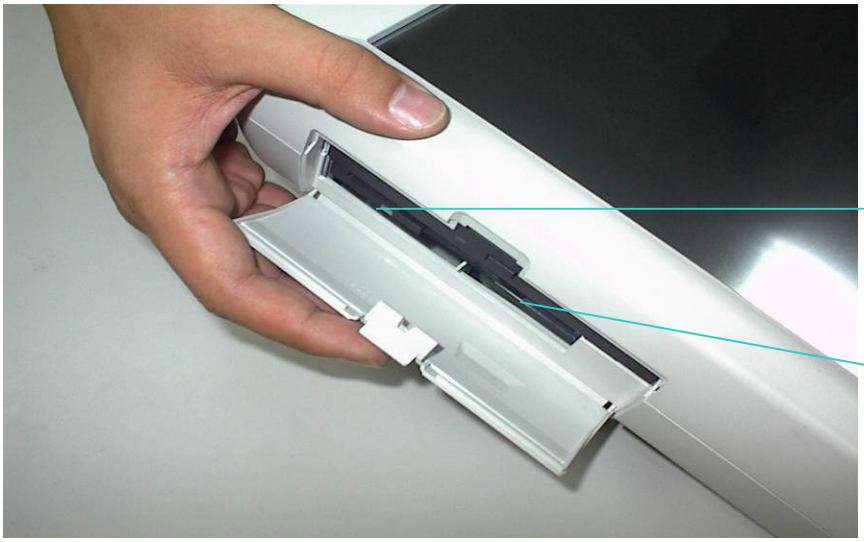
Thus designation helps user easy and comfortable to handling. Its multi-functional capability makes it suitable for software developments under Windows XP, XP Embedded, XP professional for Embedded, WIN 2000 professional Embedded, WIN NT 4.0, Linux, Redhat 7.2, WIN98, ME.

The brand new Touch POS 8802 has been designed with all advantages from JARLTECH POS series, but less cost to customer with its interactive transaction, RFID and smart card reader design provides multiple clerk access and customer database management, suitable and superior for super-market; hotel; convenience store; restaurants and any organization or store that needs point of service.
Following description helps user understand what integrated part in 8802 TouchPOS.

CHAPTER 2 Appearance

(Figure 1-1)

(Figure 1-2)

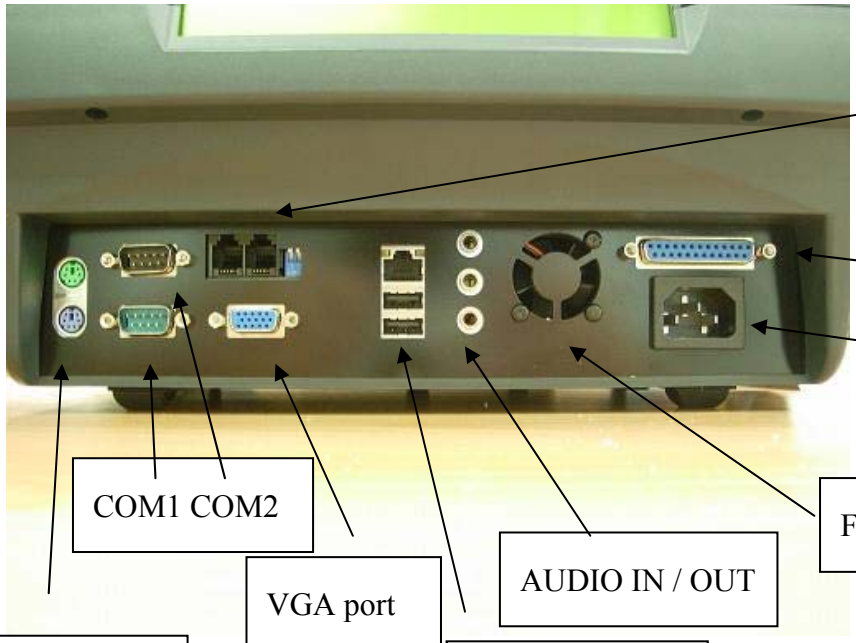


Extend USB

(Option)

Extend IDE

(Option)



Cash draw port

Printer port

AC power

Fan

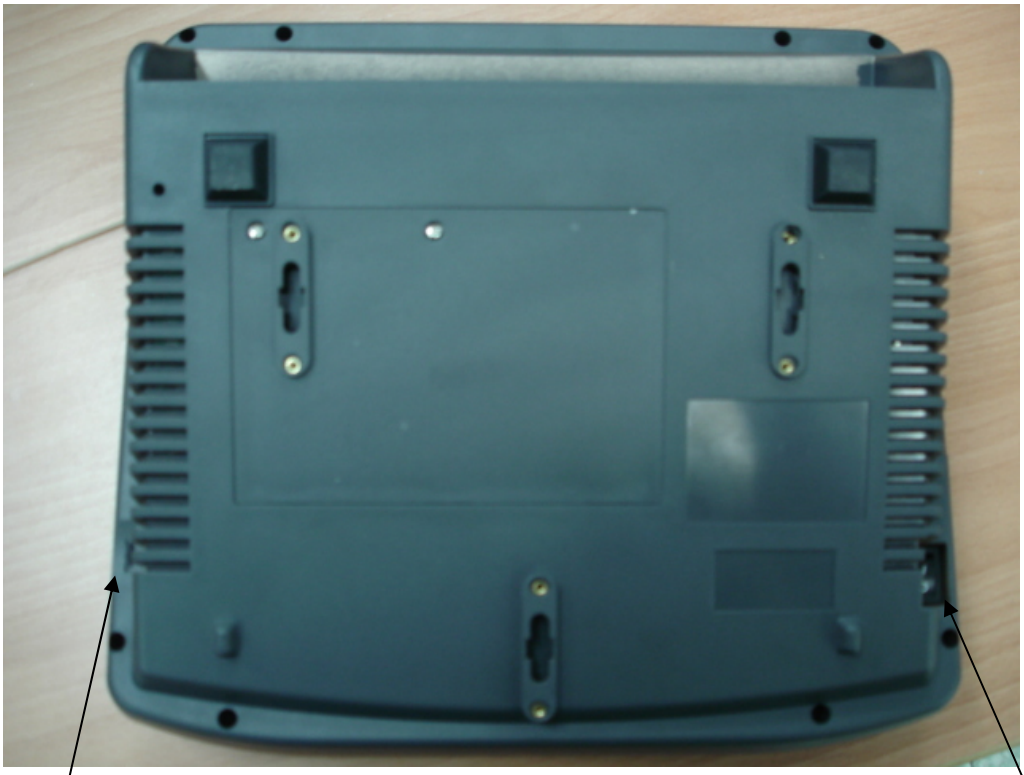
AUDIO IN / OUT

USB port

VGA port

COM1 COM2

PS2/KB port



COM1/COM2: Standard DB9 PIN Serial port

Mouse: PS2 mouse socket

K/B: PS2 Keyboard socket

USB: USB port X 2

VGA: 15 Pins VGA Connector

LAN: Ethernet connector

Multi-Media: Line Out / MIC / Line-In

CD1/CD2: Cash Draw 1(beside SW) and Cash Draw 2

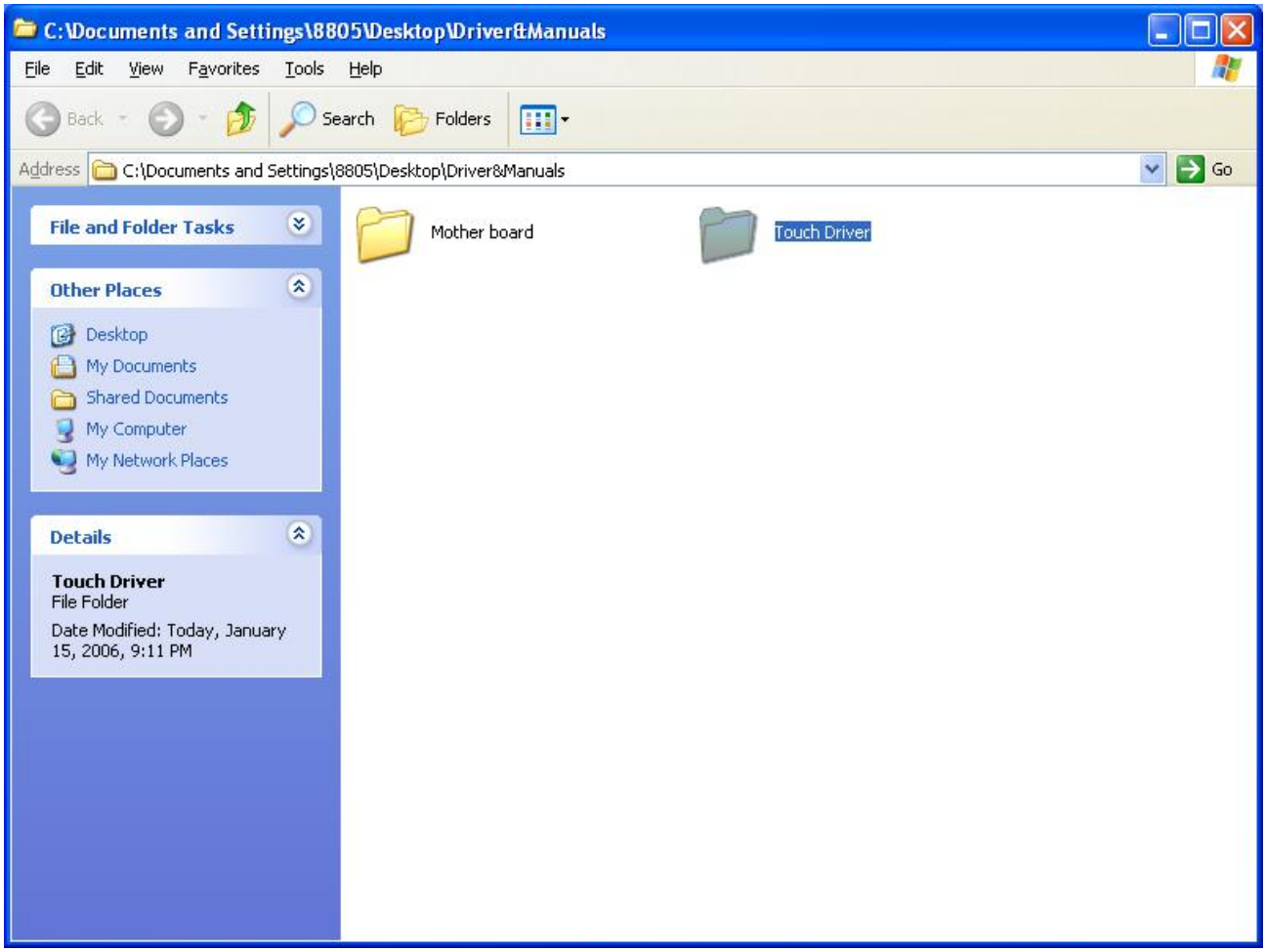
SW: Switch button – SW1 SW2; ↓ = ON, ↑= OFF (Default SW1=OFF , SW2=OFF)

Power: Connect to ATX power supply

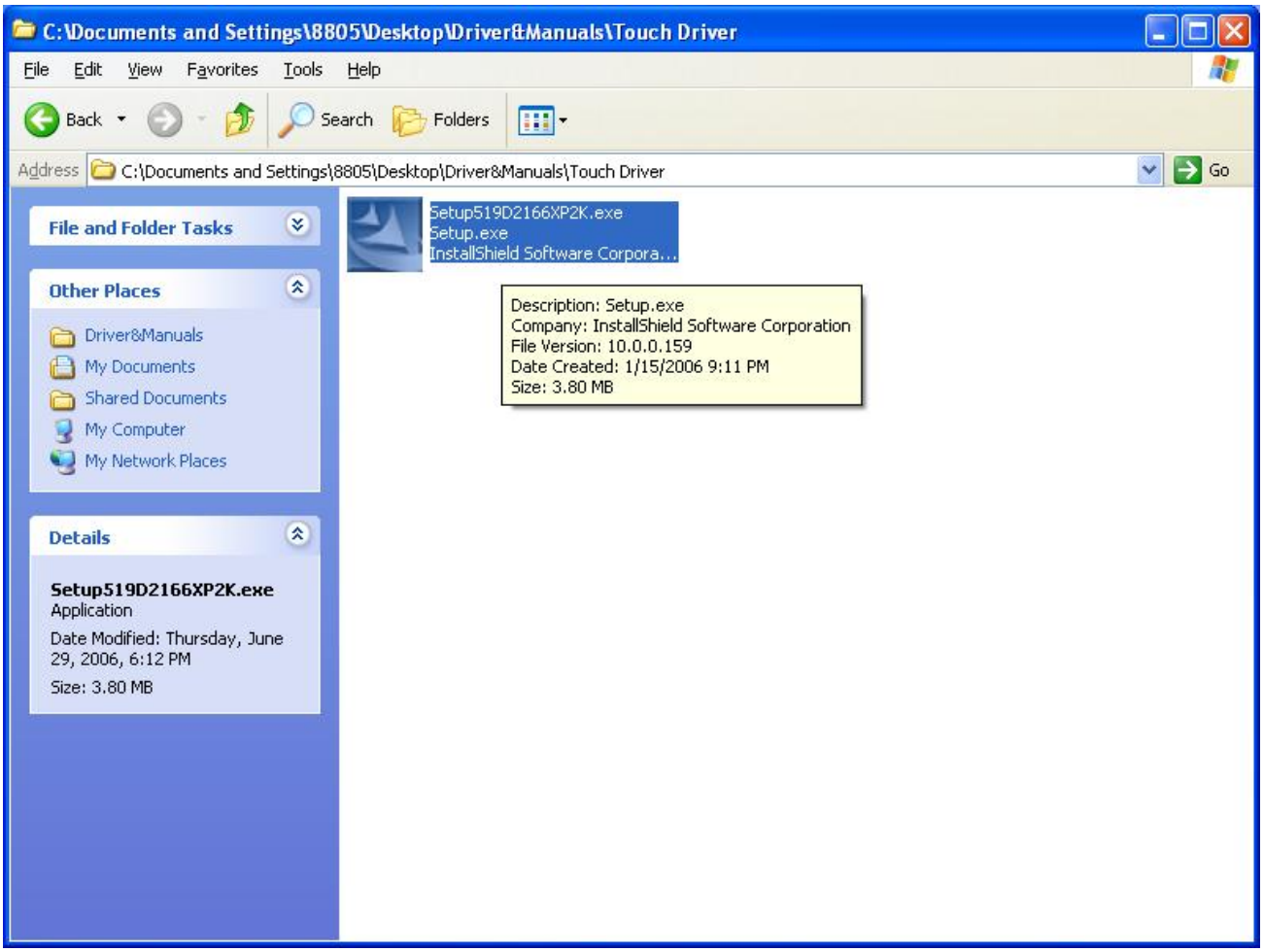
CHAPTER 3 Driver Installation

Touch Drivers

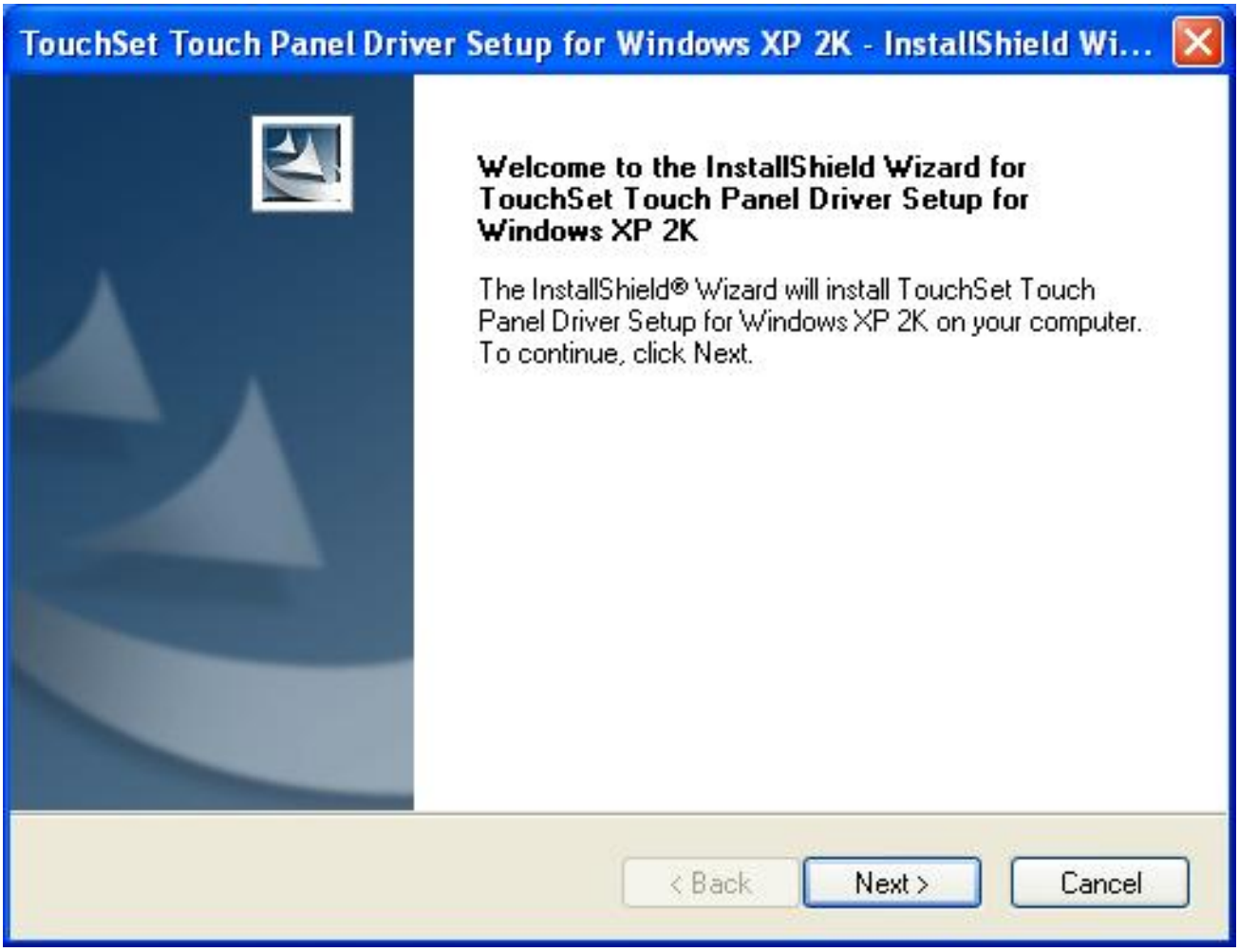
Insert CD Rom and select driver & manual folder.



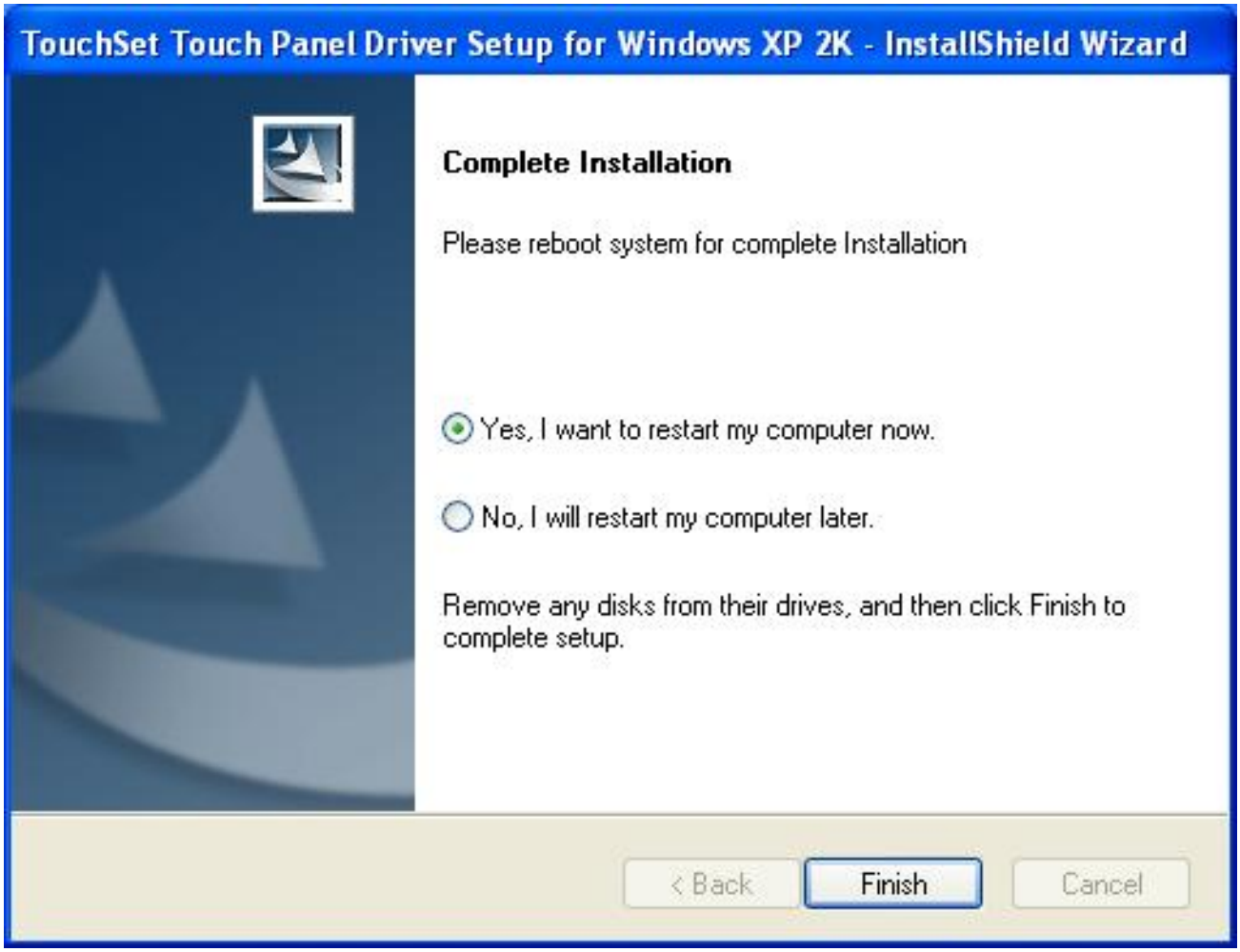
Select Touch driver folder.



Access setup of 519d2166xp2k.exe



Skip out the previous setup screen and select next step.

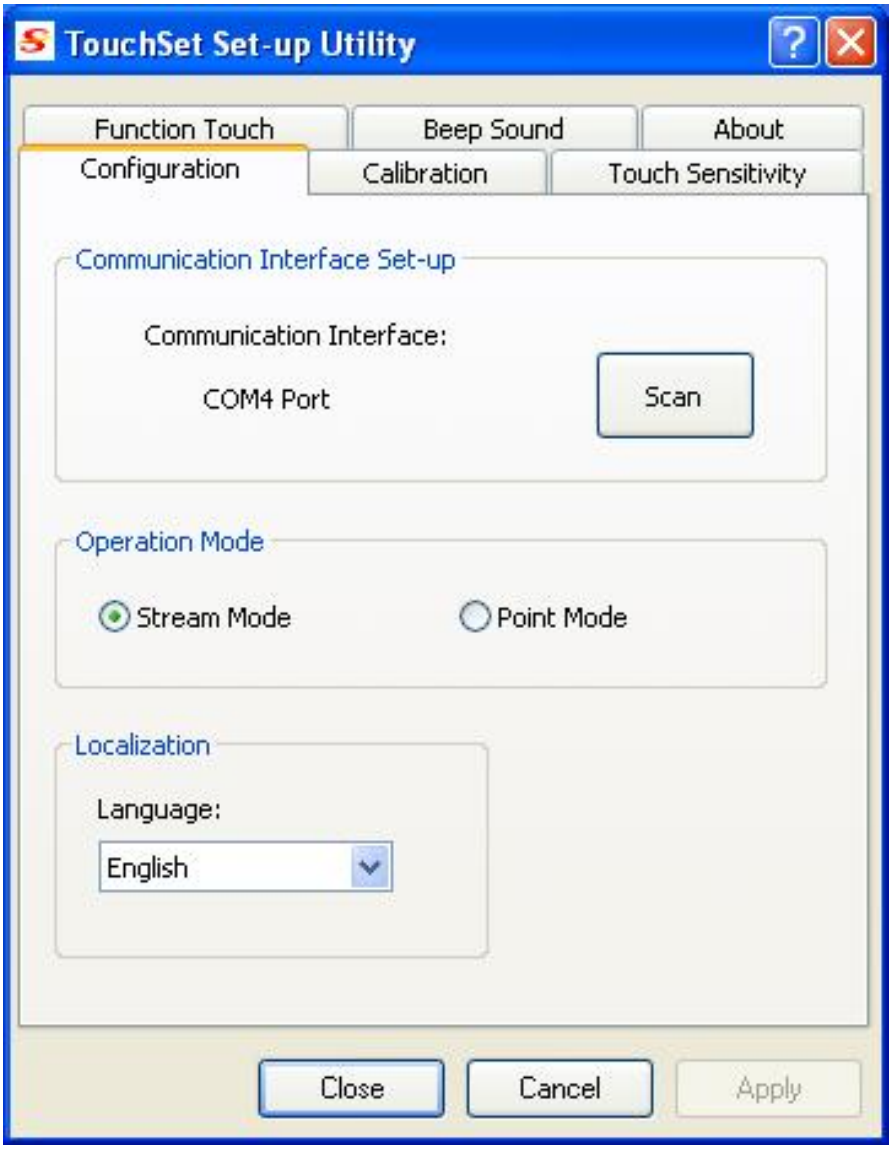


After installation

System will require reboot

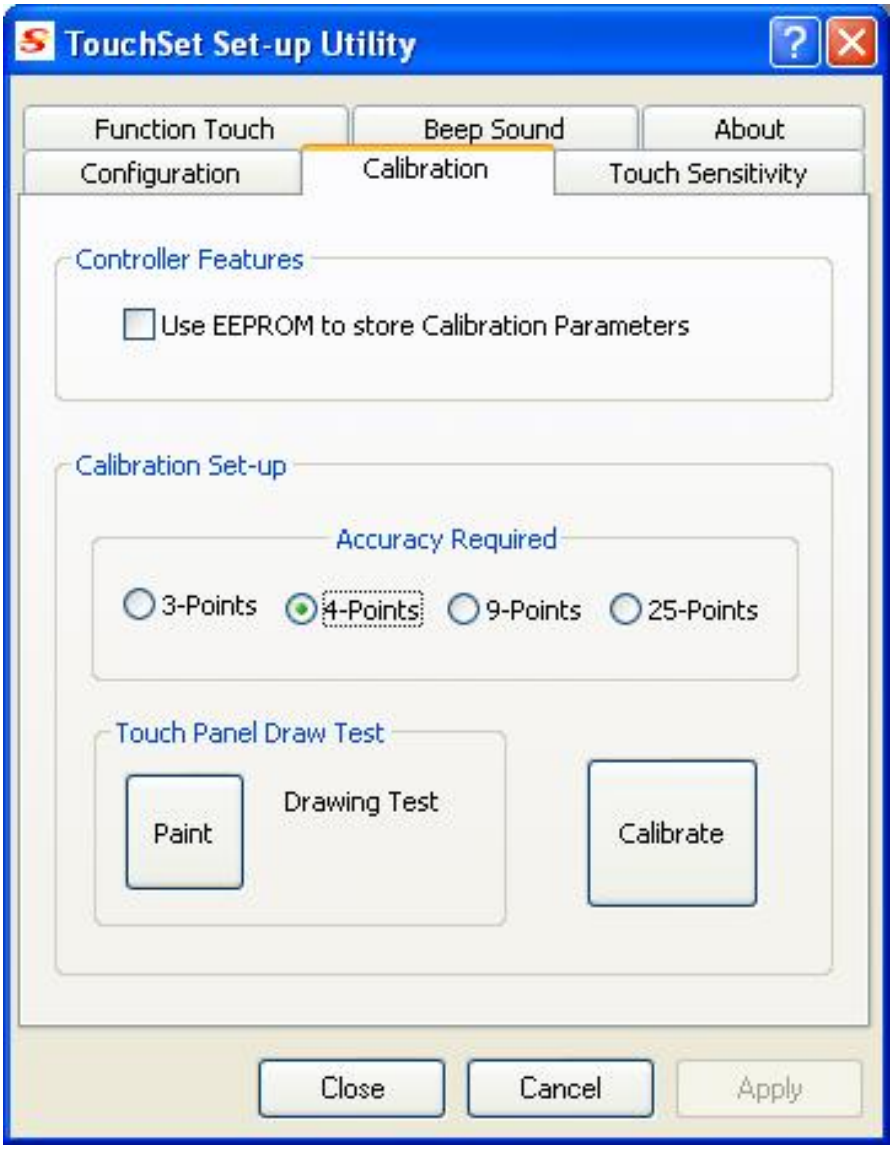
select "YES"

When first time complete Touch installation, require processing the cursor accuracy calibration, Search for the Touchset utility shortcut on the desktop and select Touchset utility to set up.



When configuration window appear, select the language which you desire

(As above selected picture explanation)



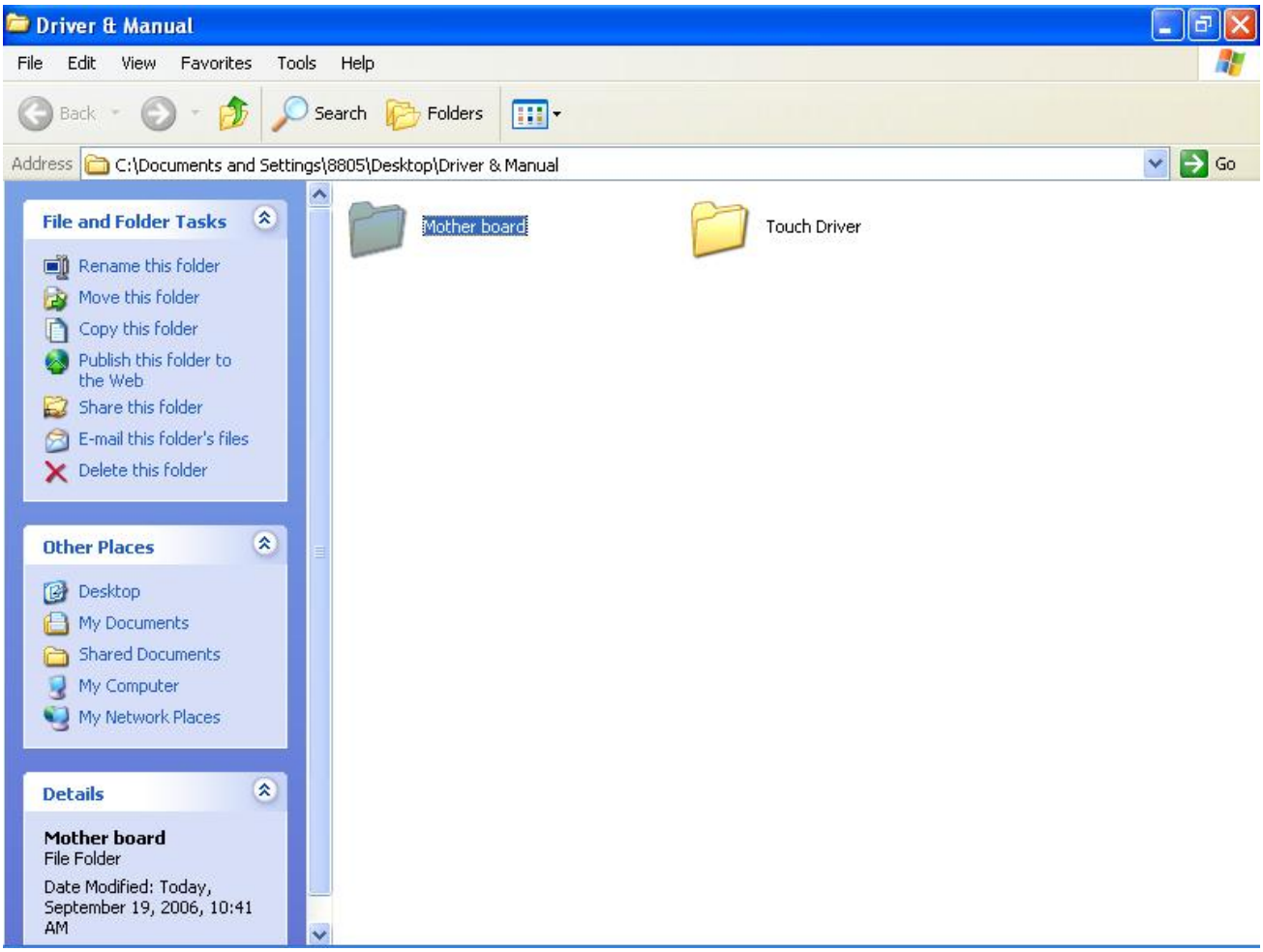
Than to select calibration function and select numbers of calibration point first (above picture shows select by 4 numbers) next to click on calibrate button.

The screen will shows as above picture, use the Touch pen to point on dot to align the cursor, if the actual alignment has too much difference than the system will skip back to previous screen and require calibration once again.

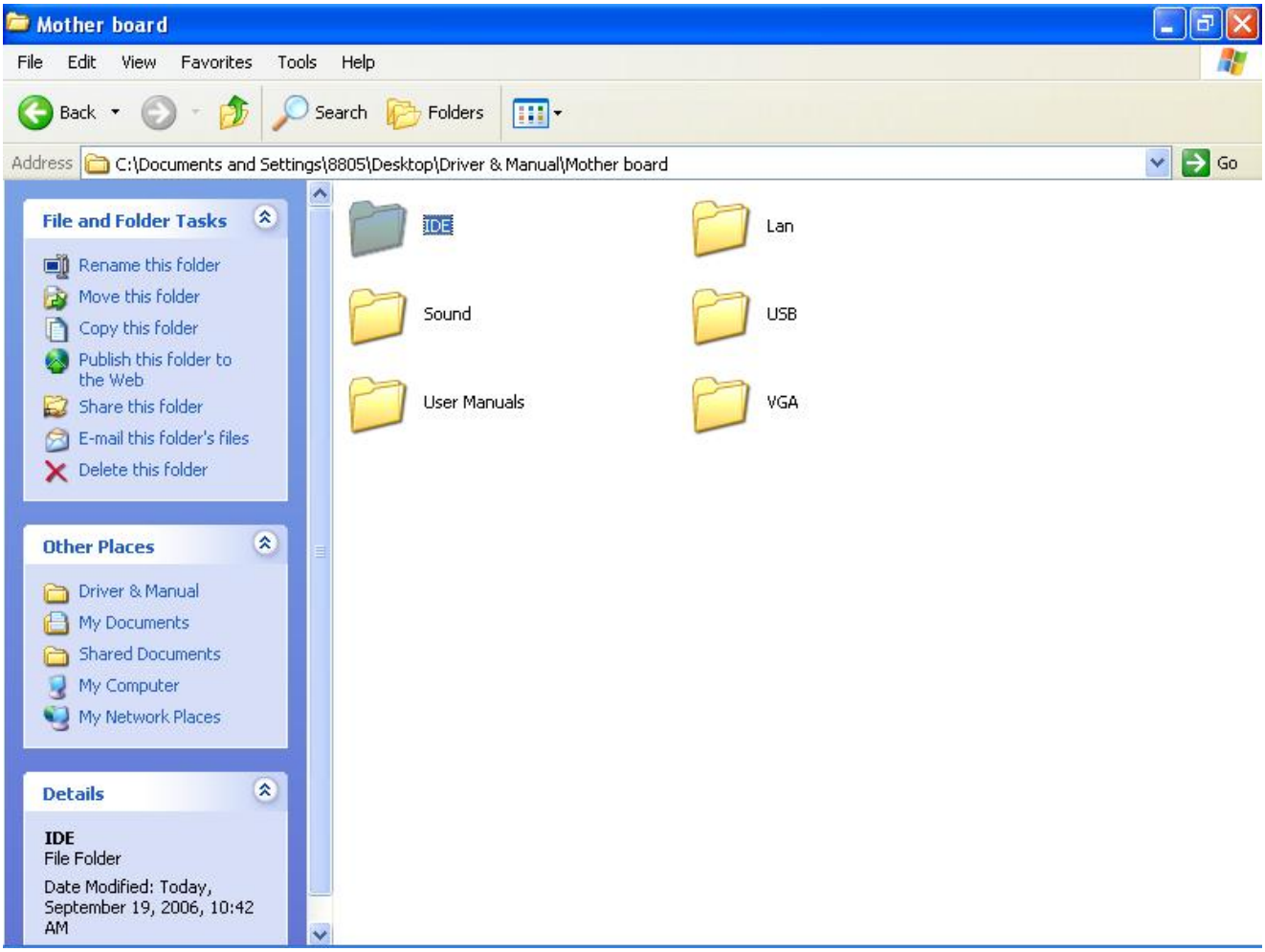
The numbers of the calibration point shows on the screen will depend on the number you have set previously, after complete system will skip back to desktop (if the cursor still not accurate please repeat the calibration again).

IDE Drivers

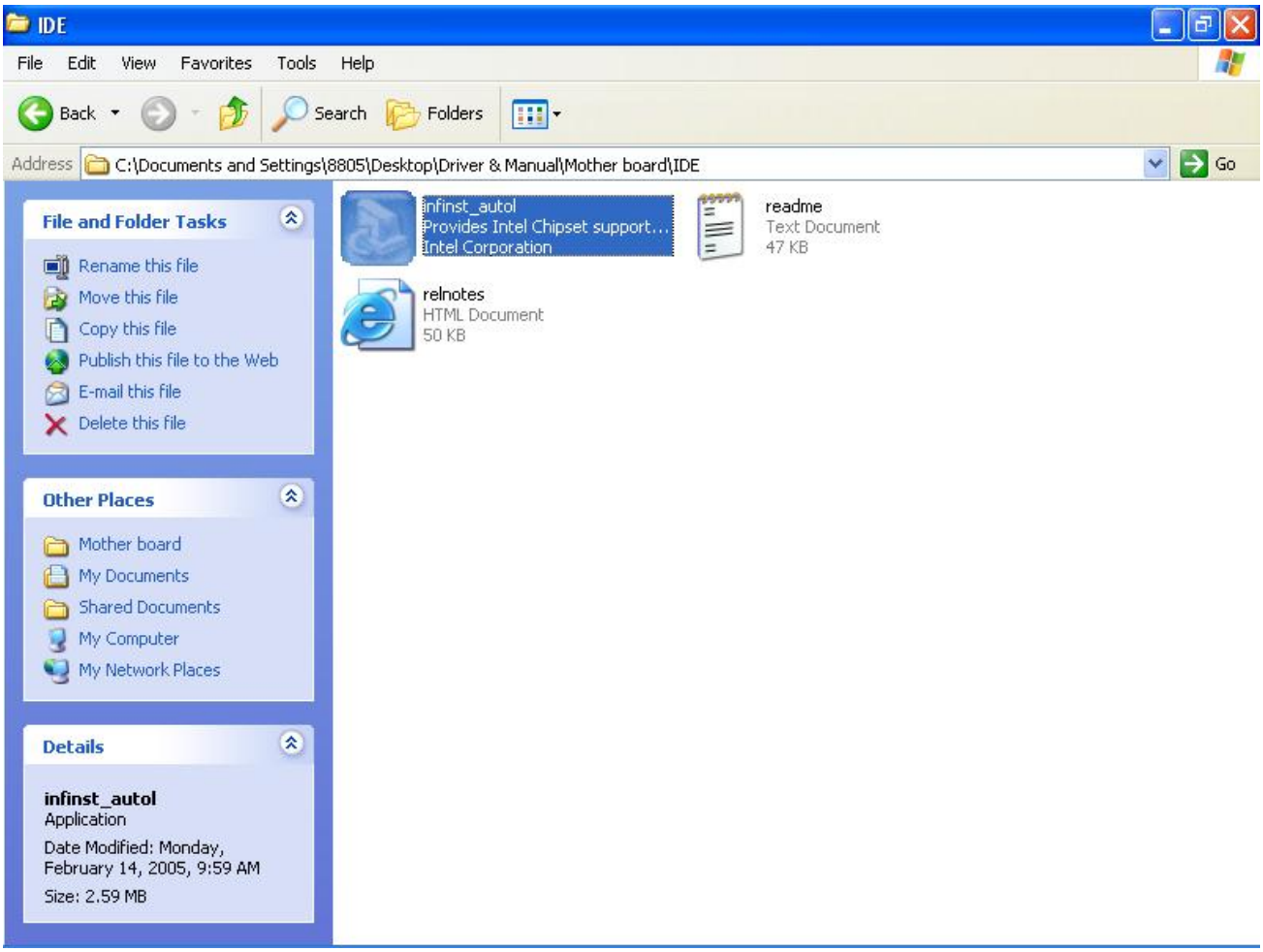
Insert CD Rom and select driver & manual file folder.



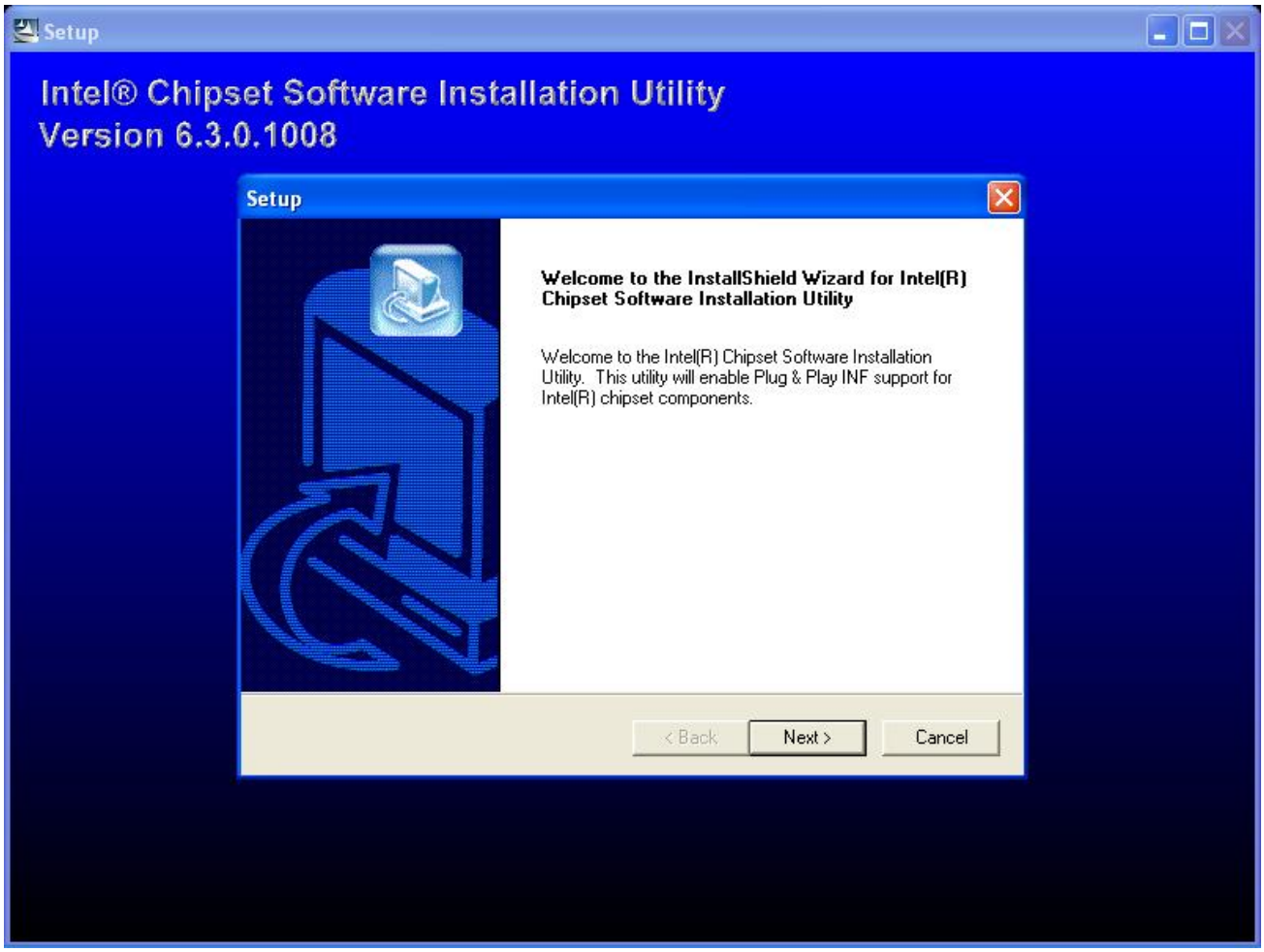
Select the mother board folder.



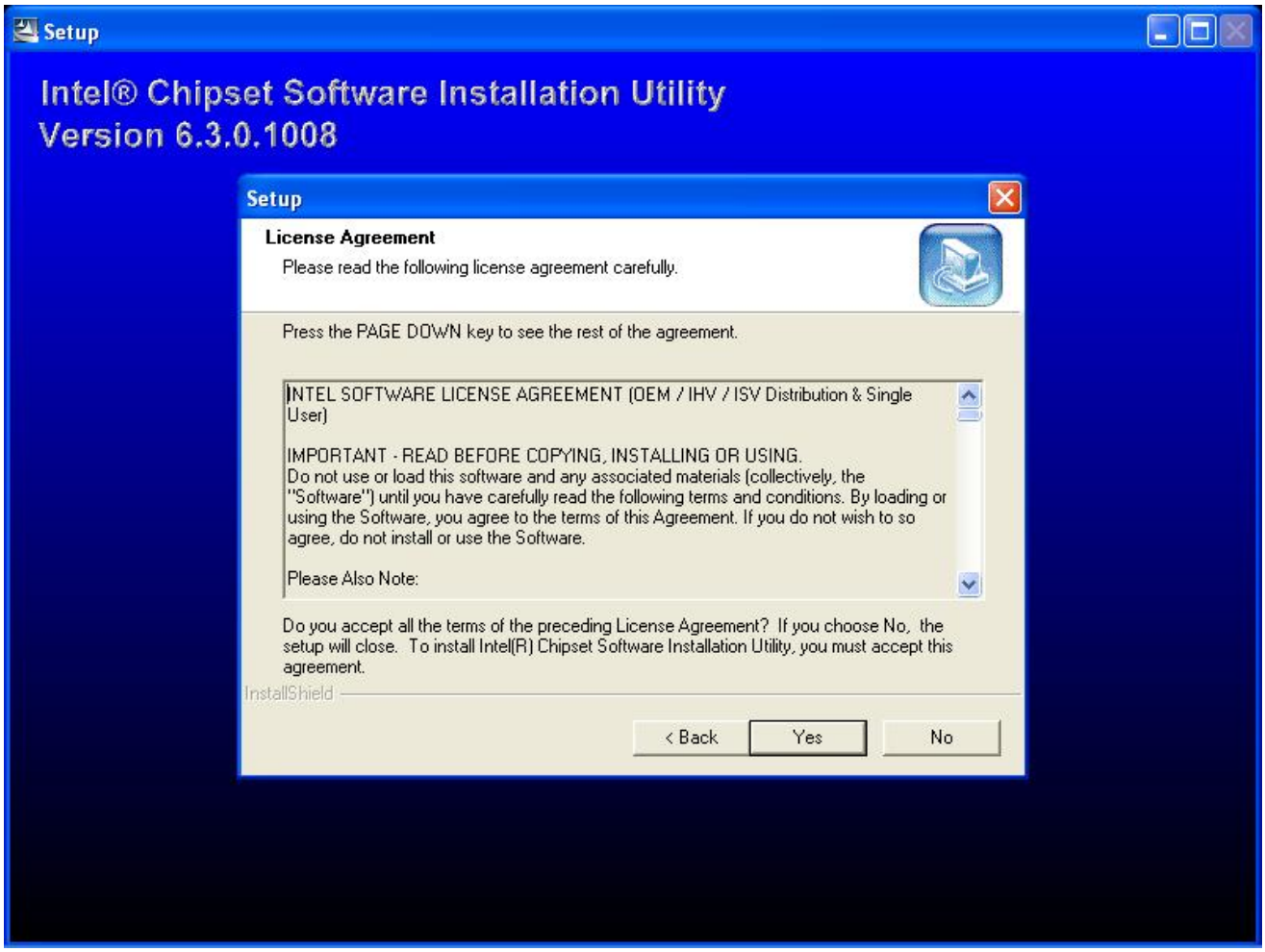
And select IDE folder.



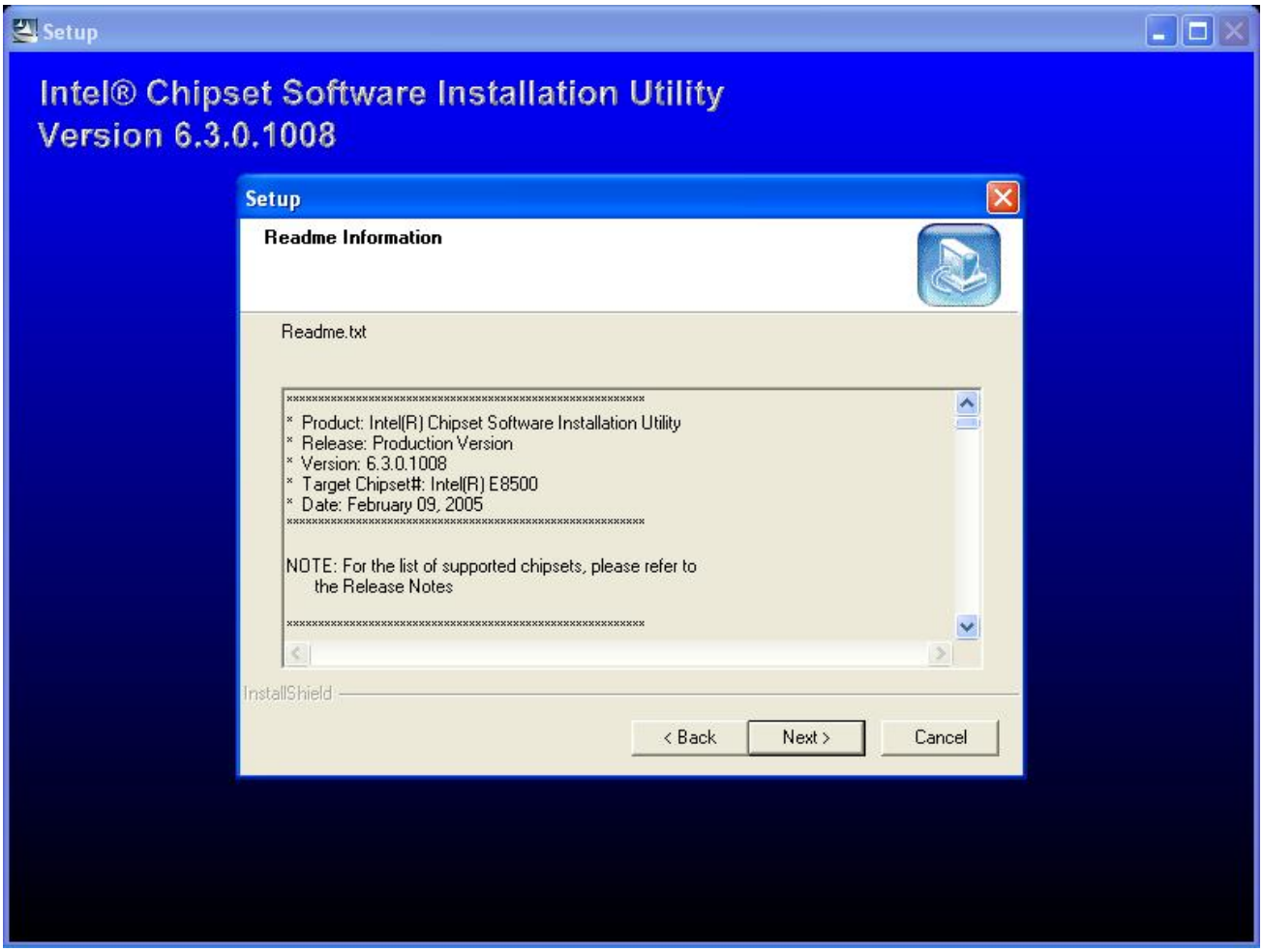
Access the infinst_autol.exe



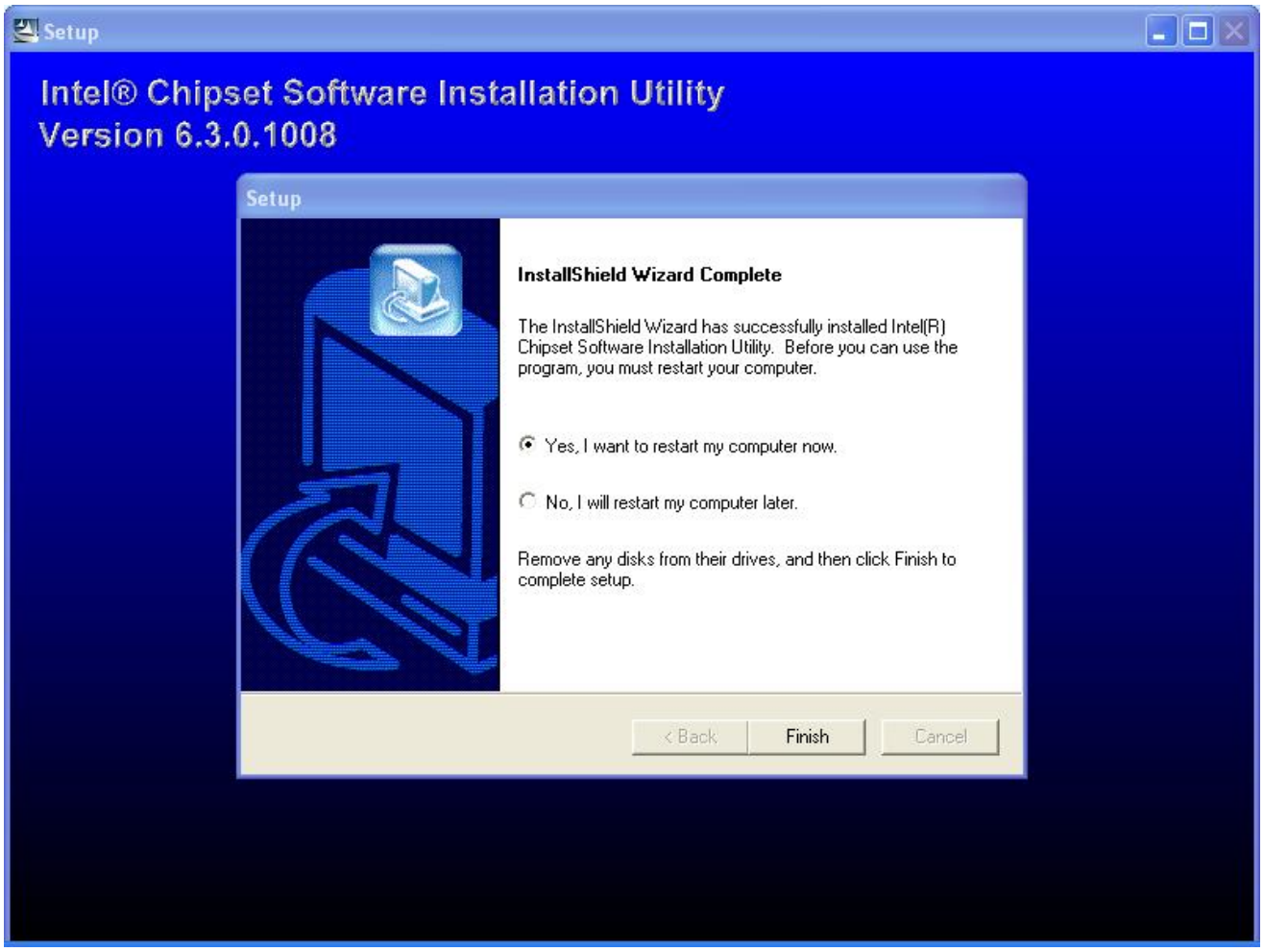
When the setup screen appears than to select next step.



Select yes to accept authorization agreement.



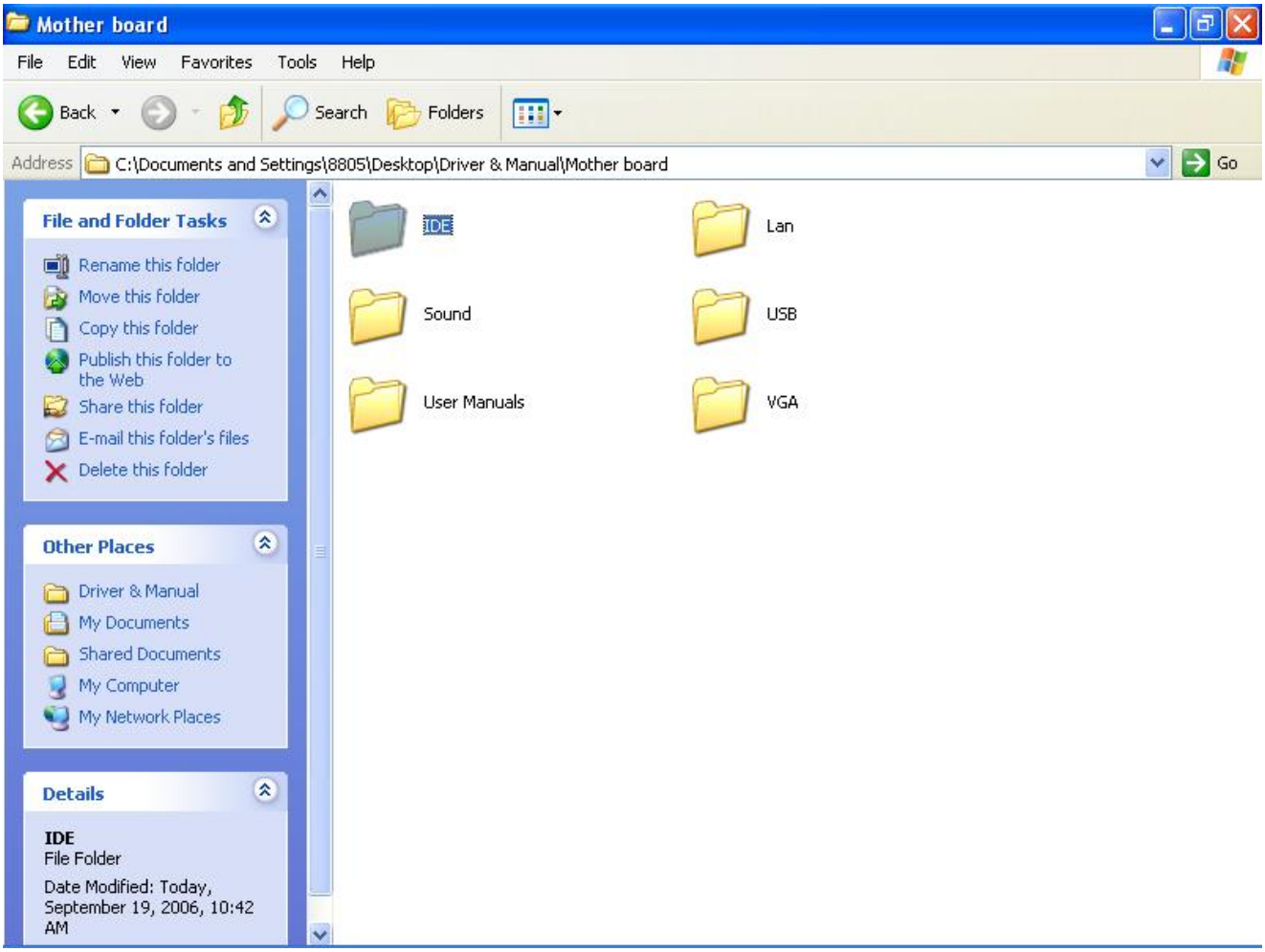
Select next step to accept the software understanding agreement.



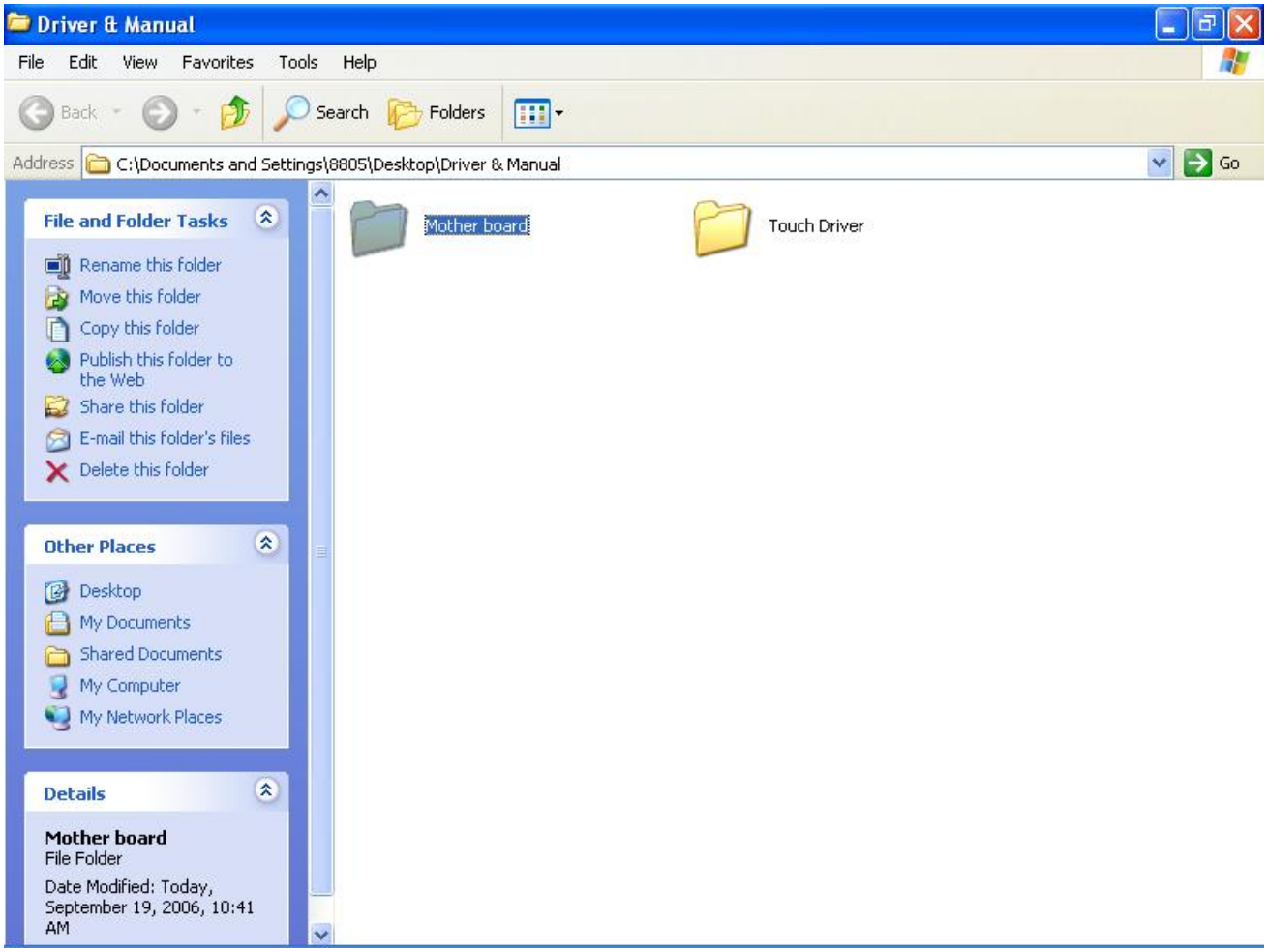
After installation

System will require reboot

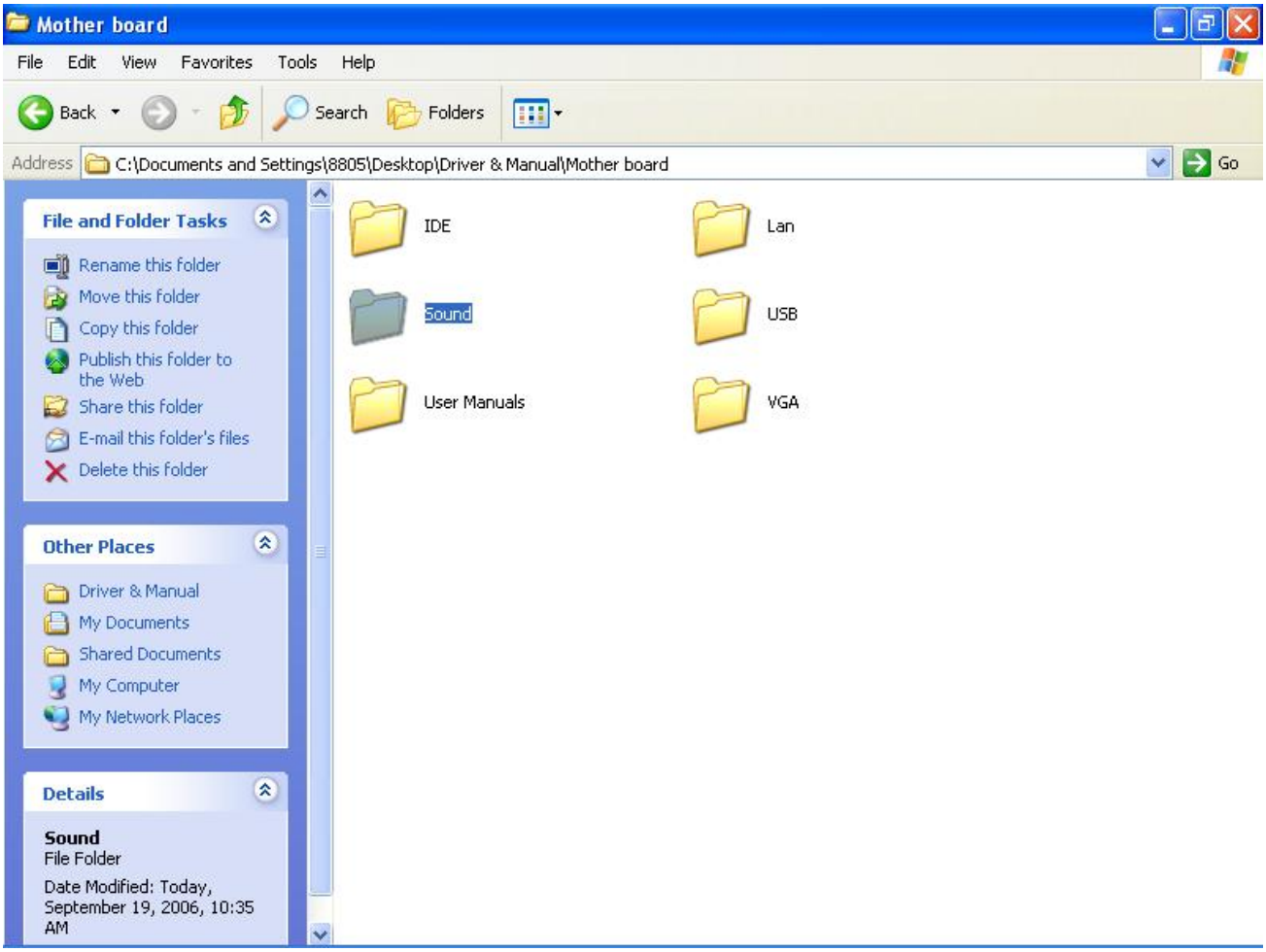
select "YES"



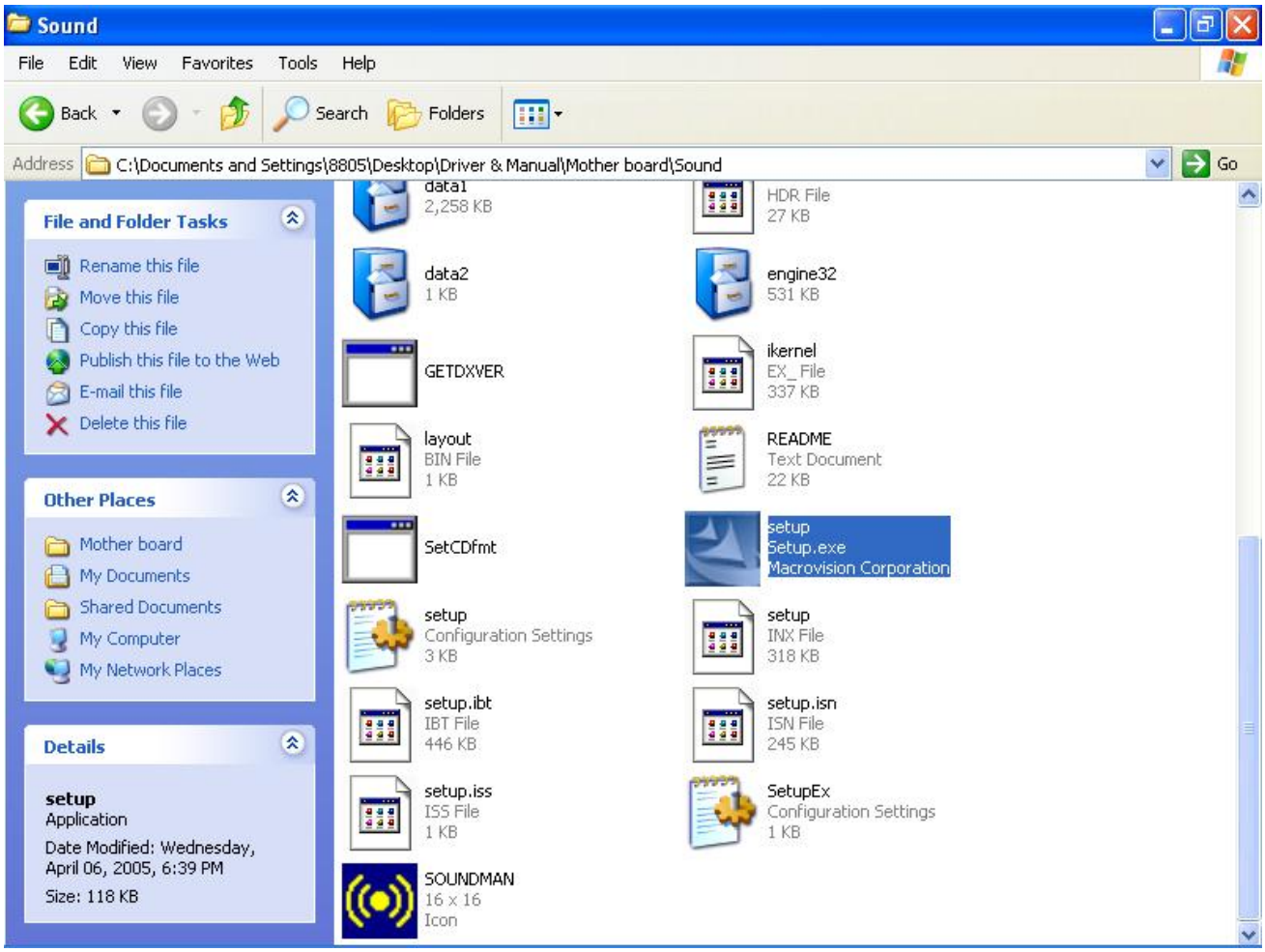
And select IDE folder.



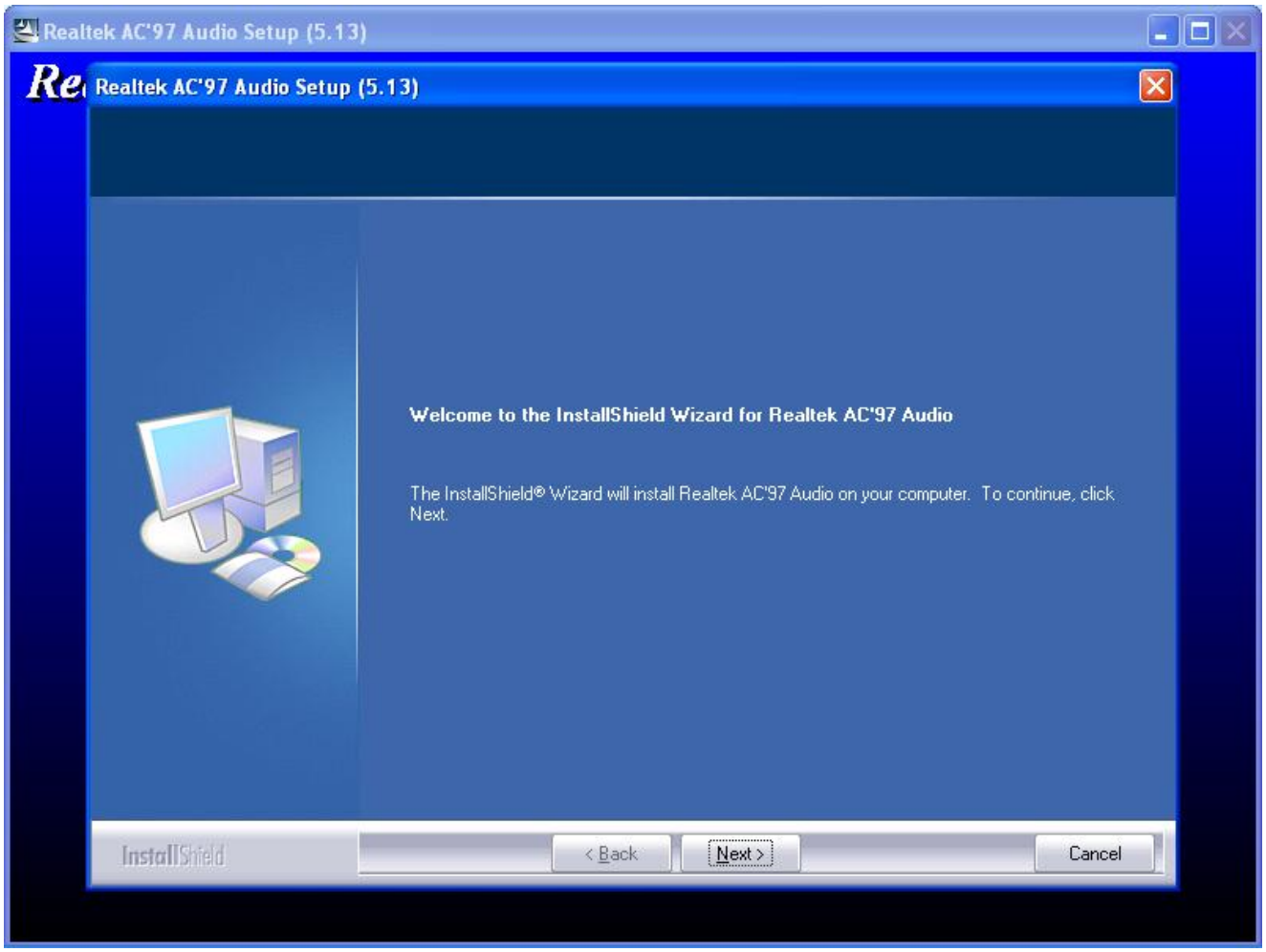
Select the mother board folder.



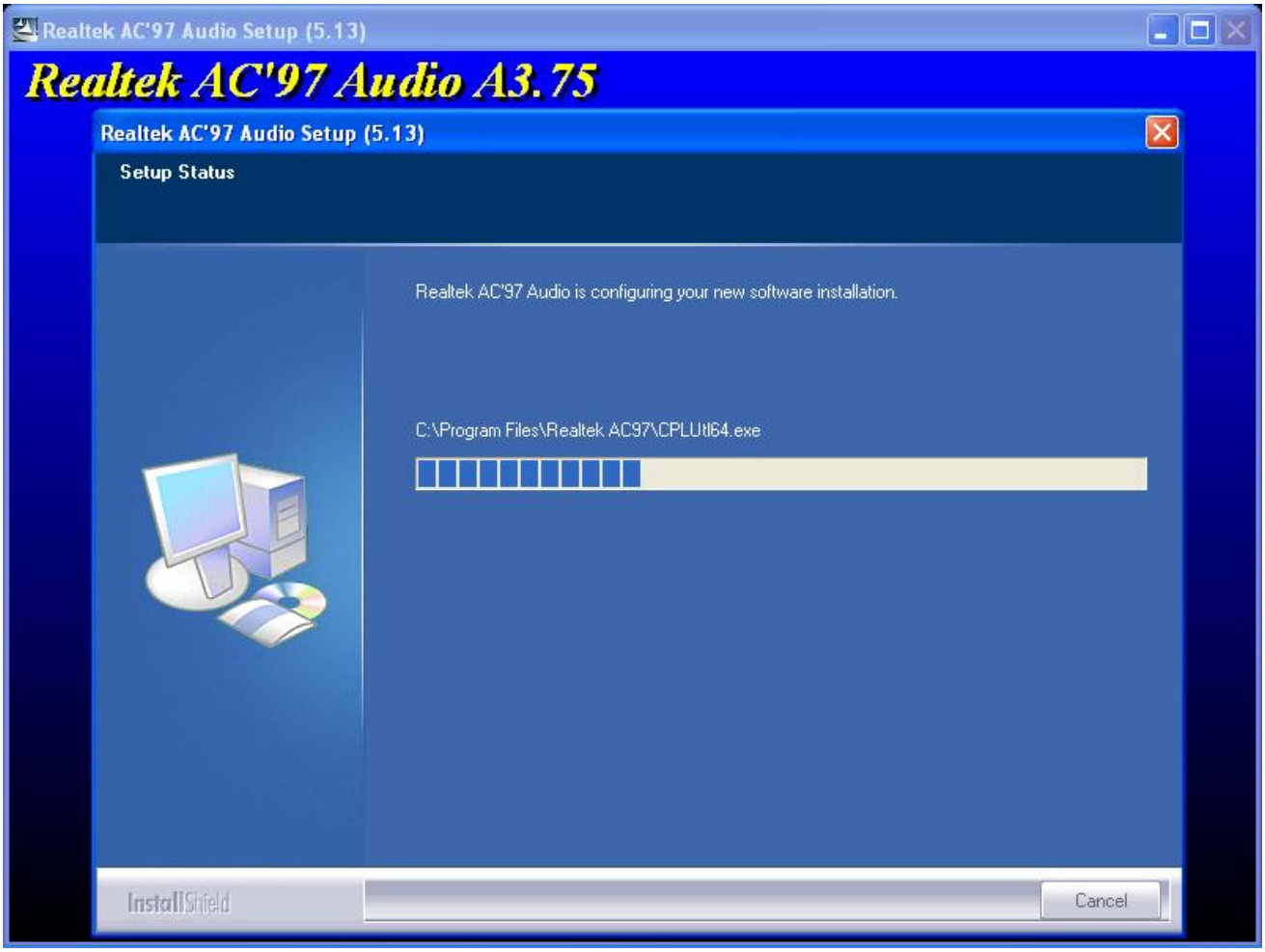
Select SOUND folder.



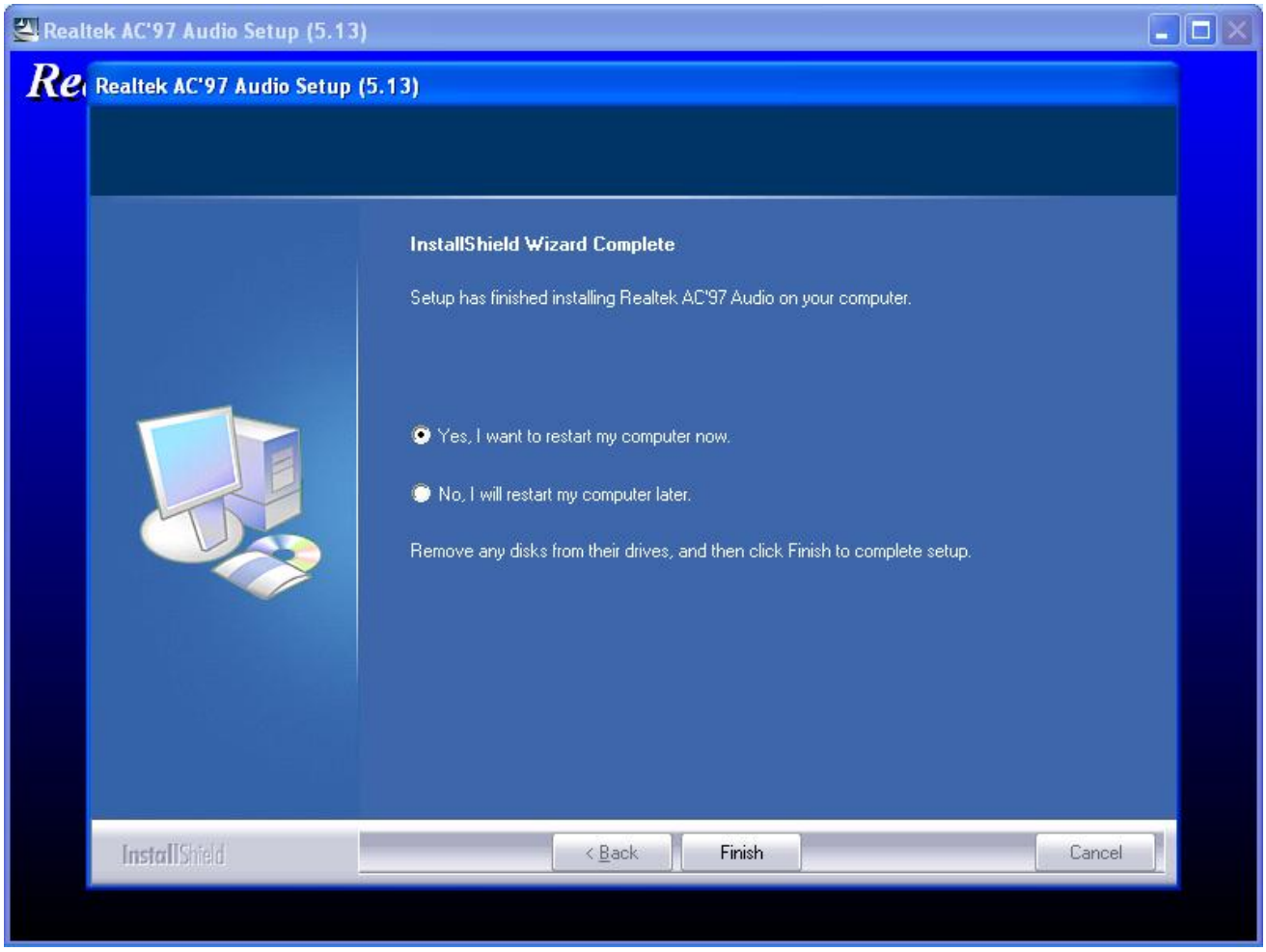
Access the SETUP.



When the setup screen appears click the next step.



Above screen shows the setup process.

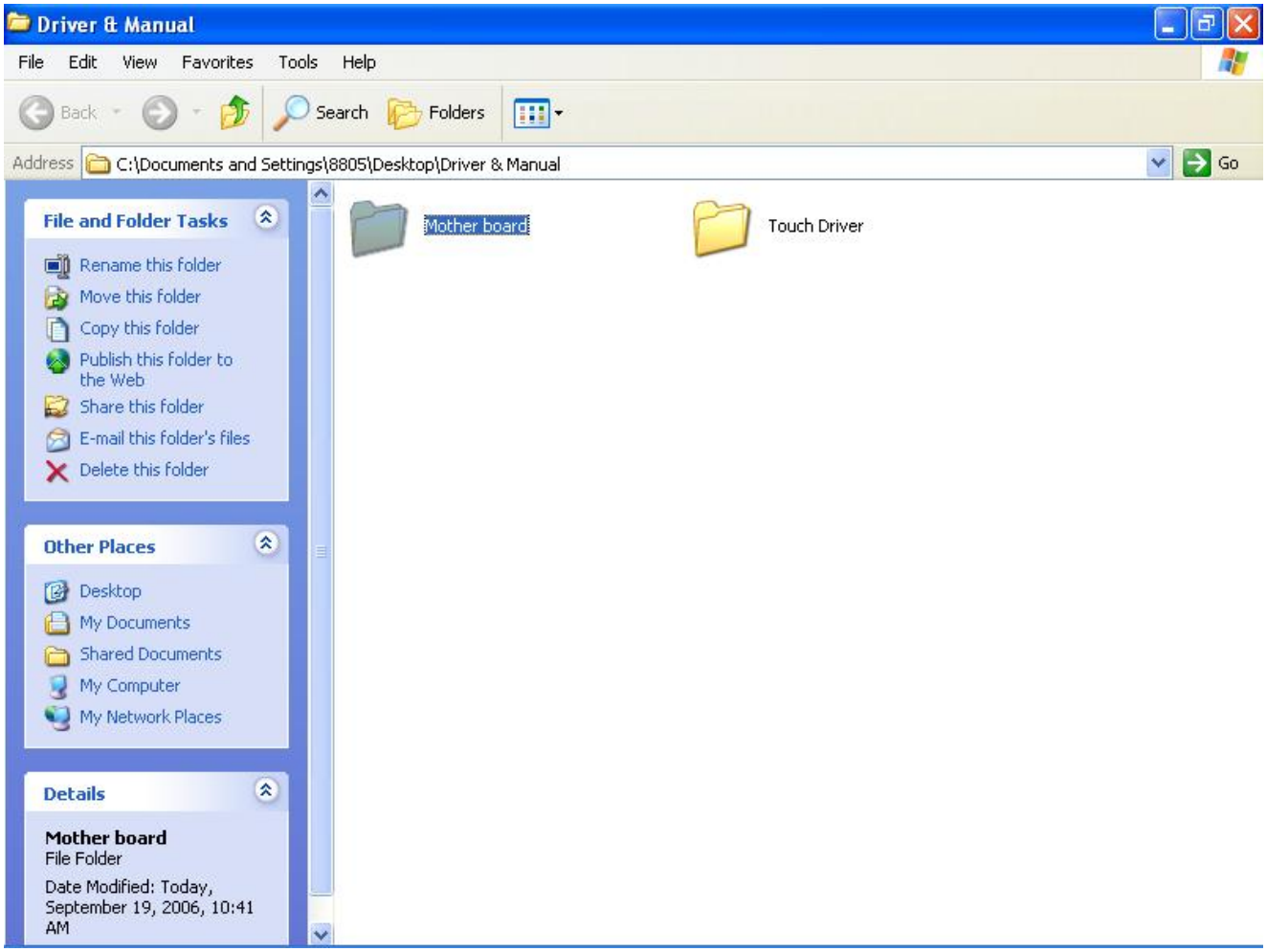


After installation

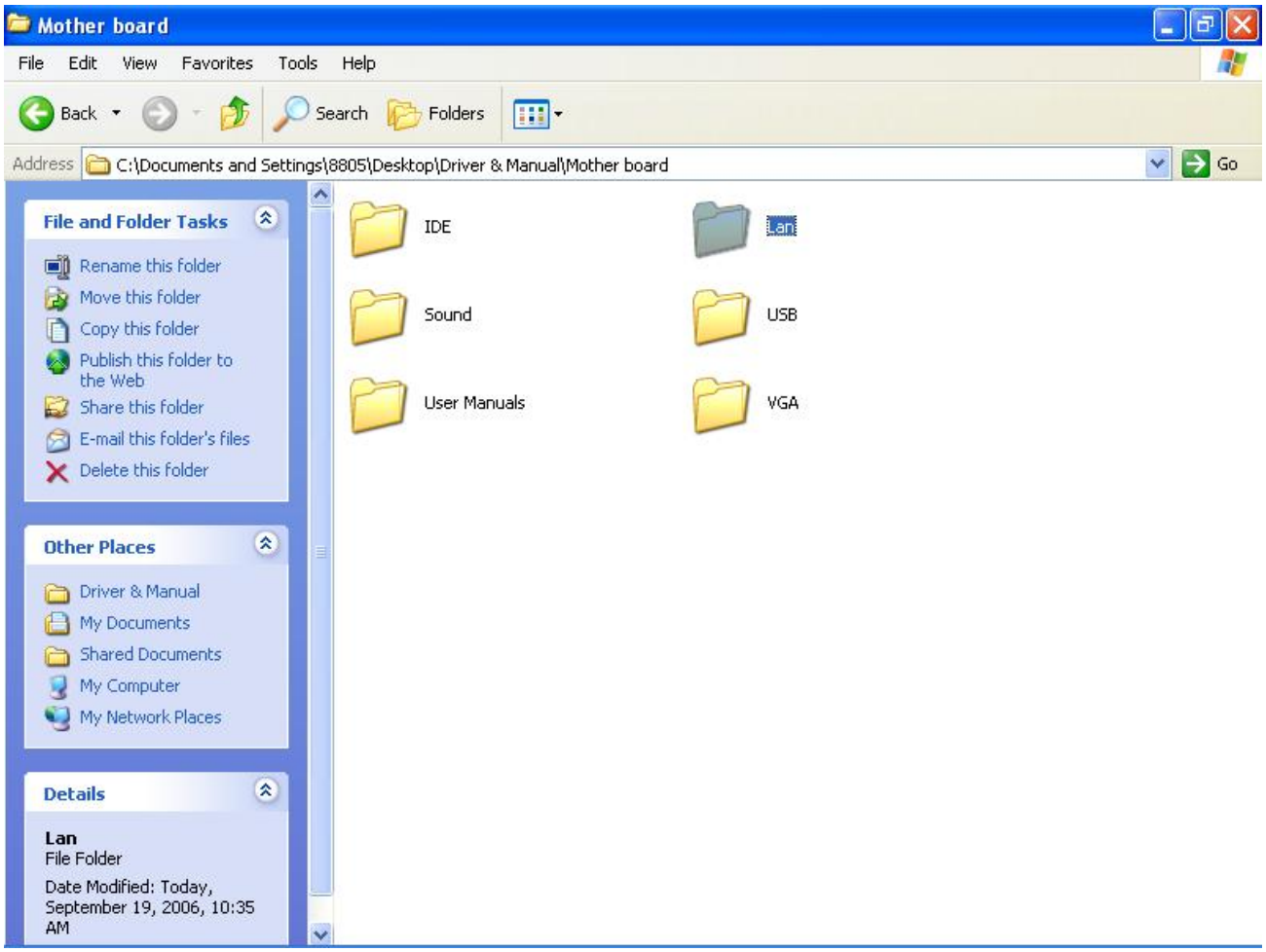
System will require reboot

select "YES"

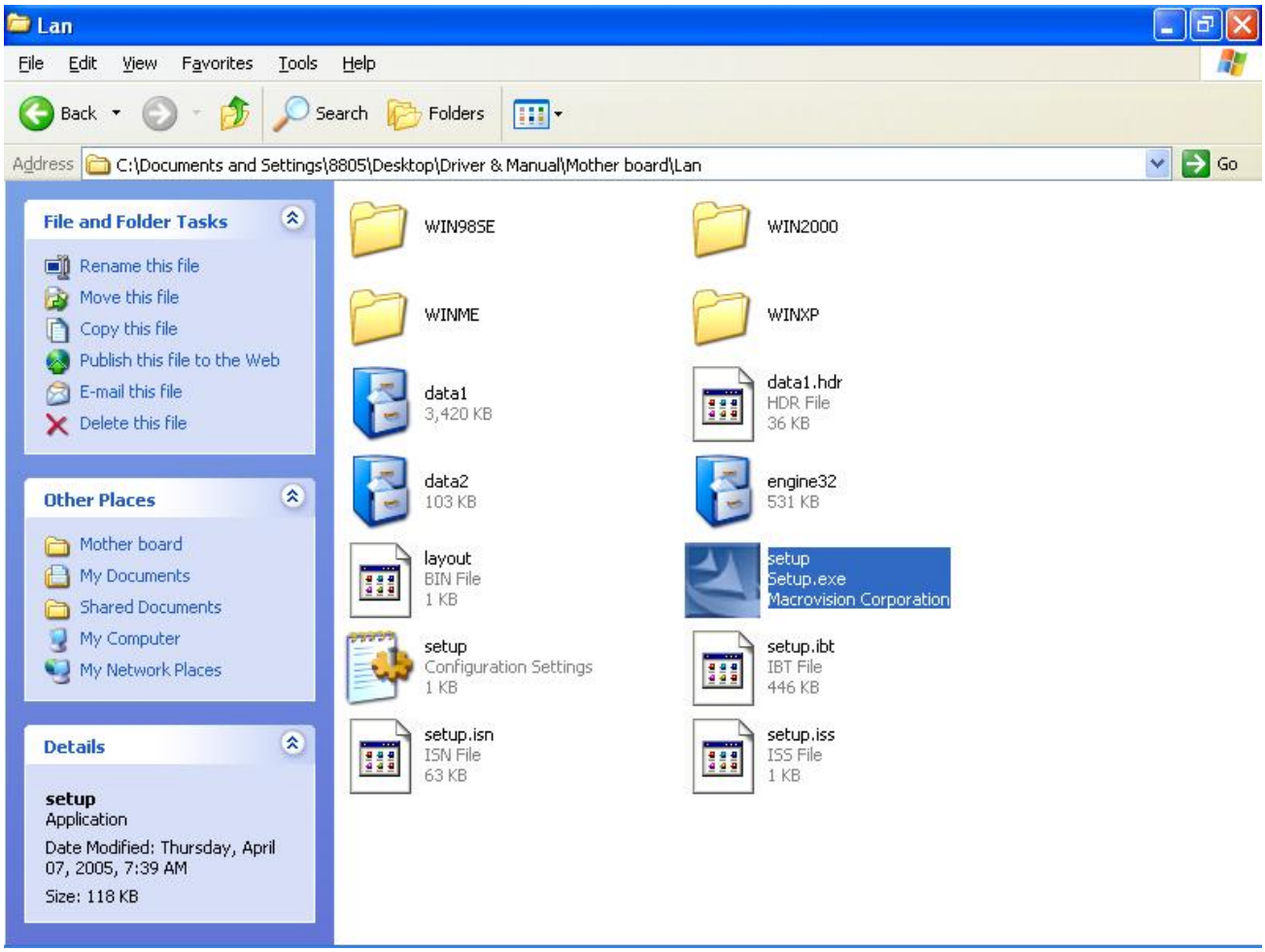
LAN Drivers



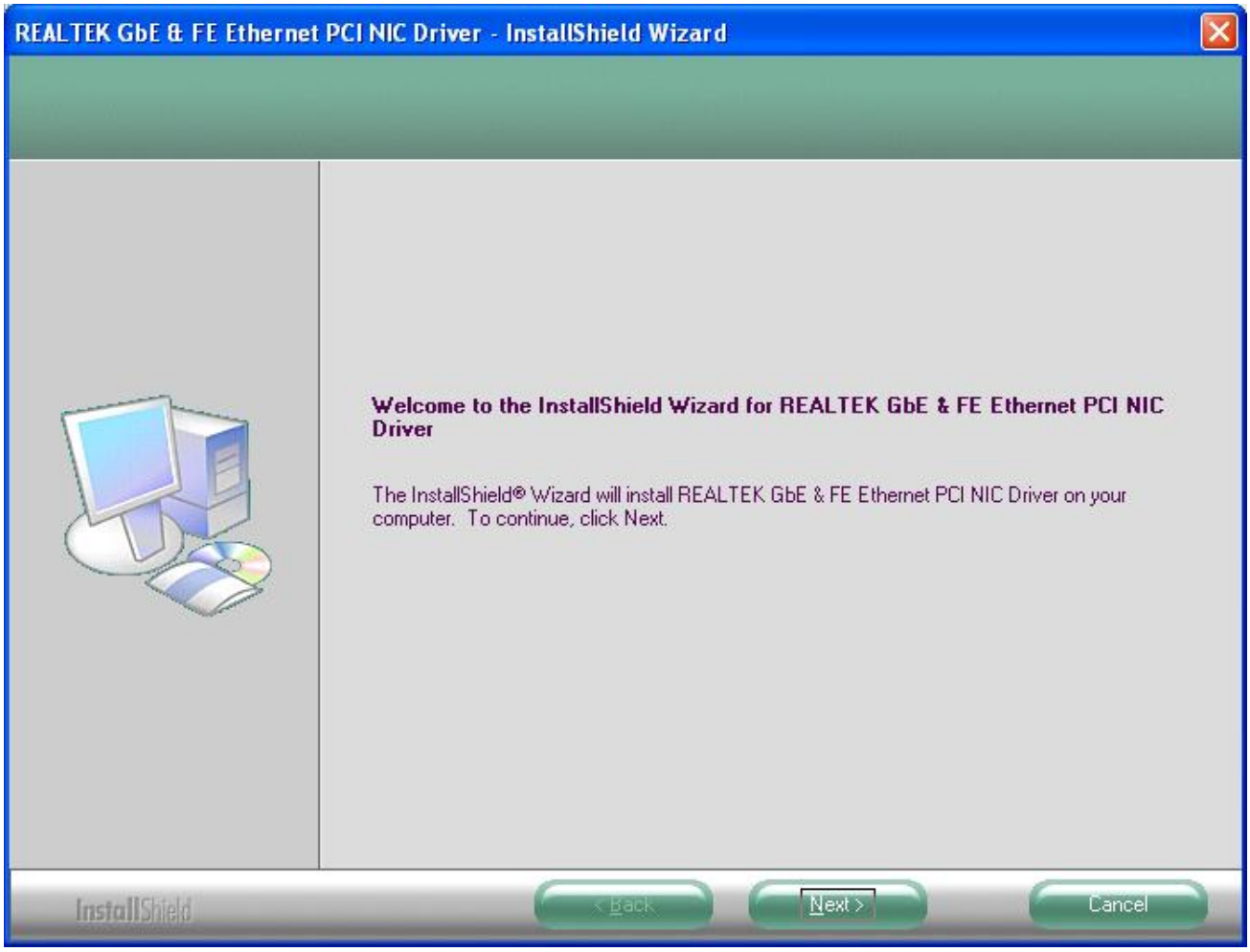
Select mother board folder.



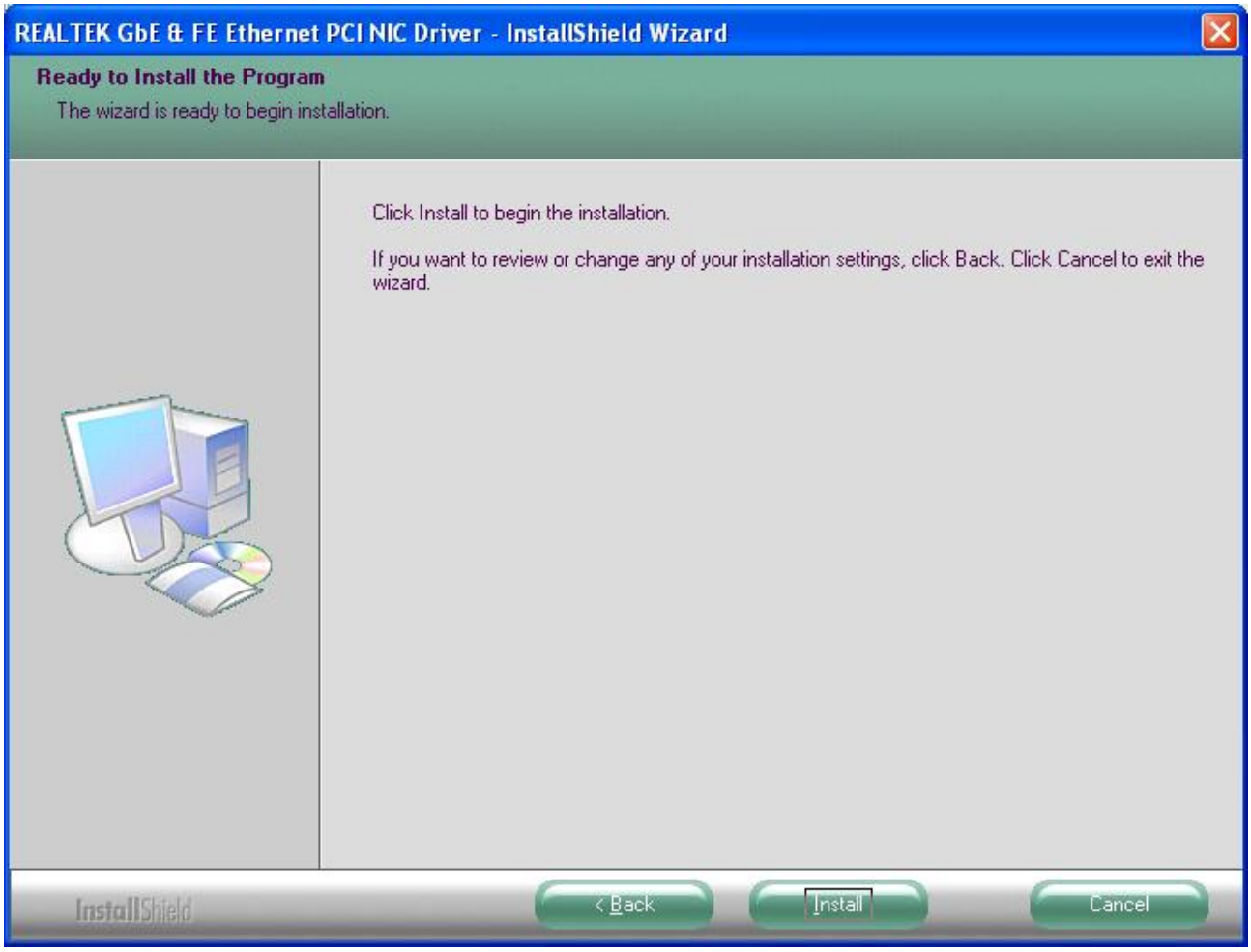
Select LAN folder.



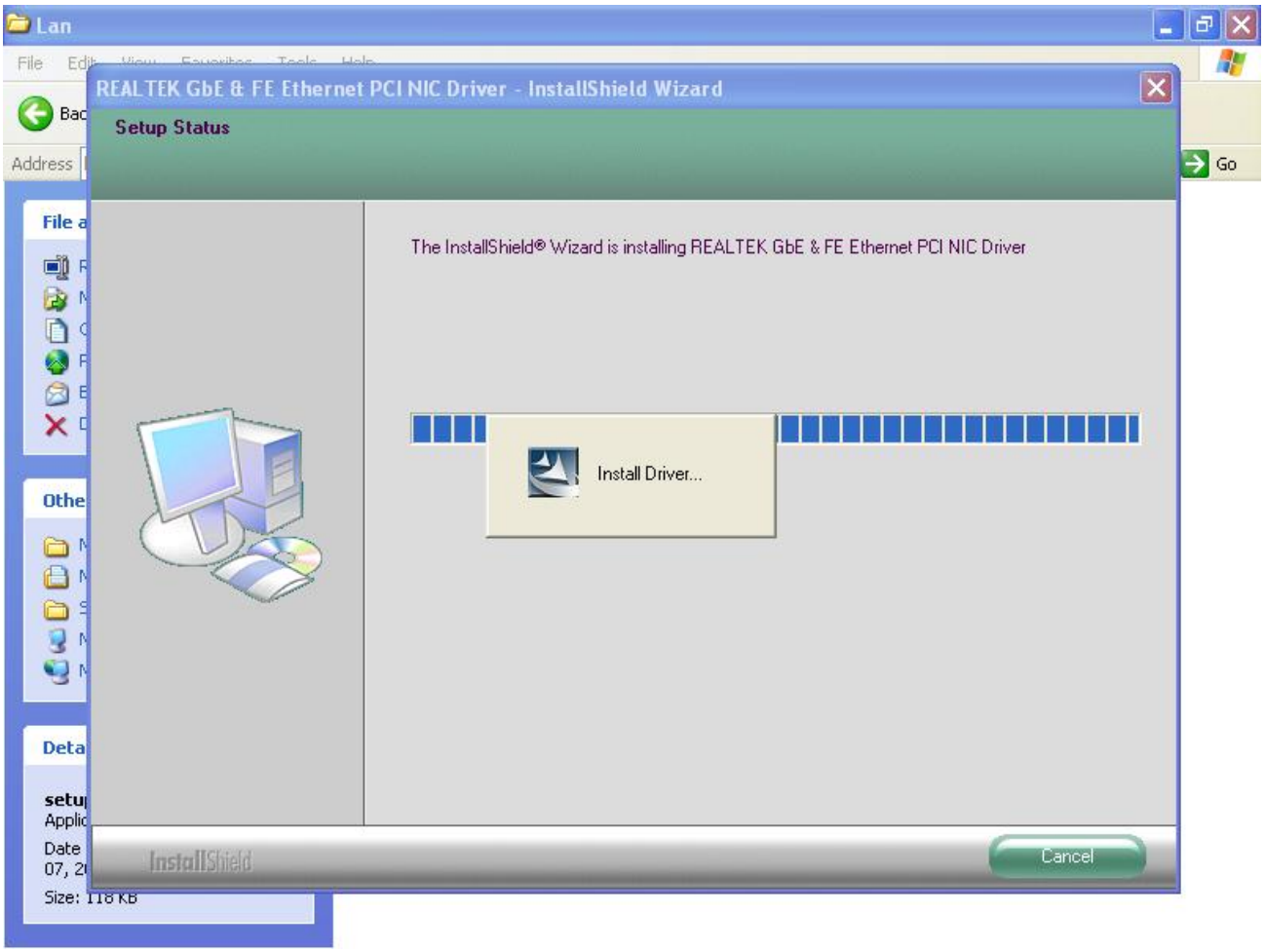
Access the SETUP.



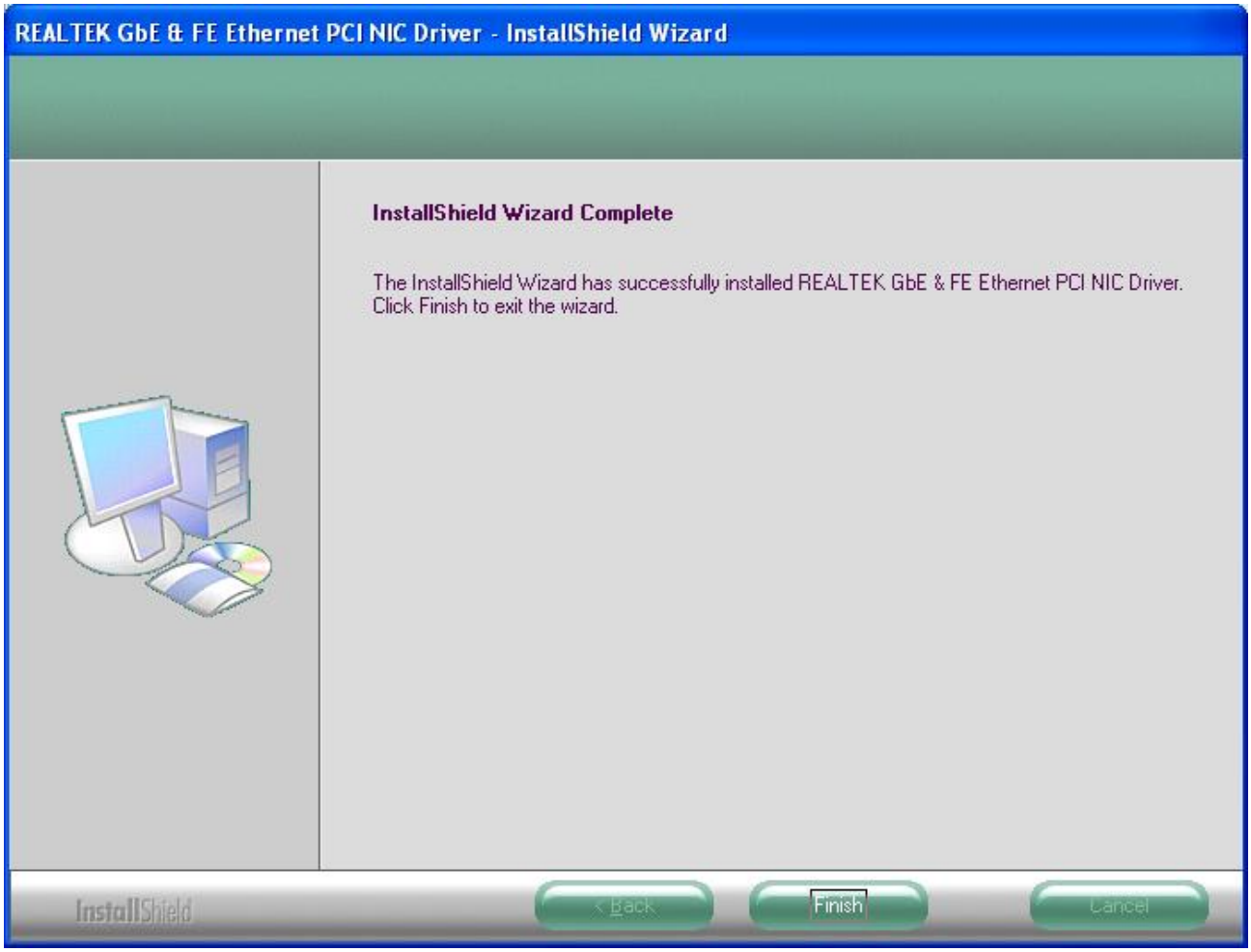
When the setup window appear than to select the next step.



When the next setup window appears again select the setup to continue the setup process.



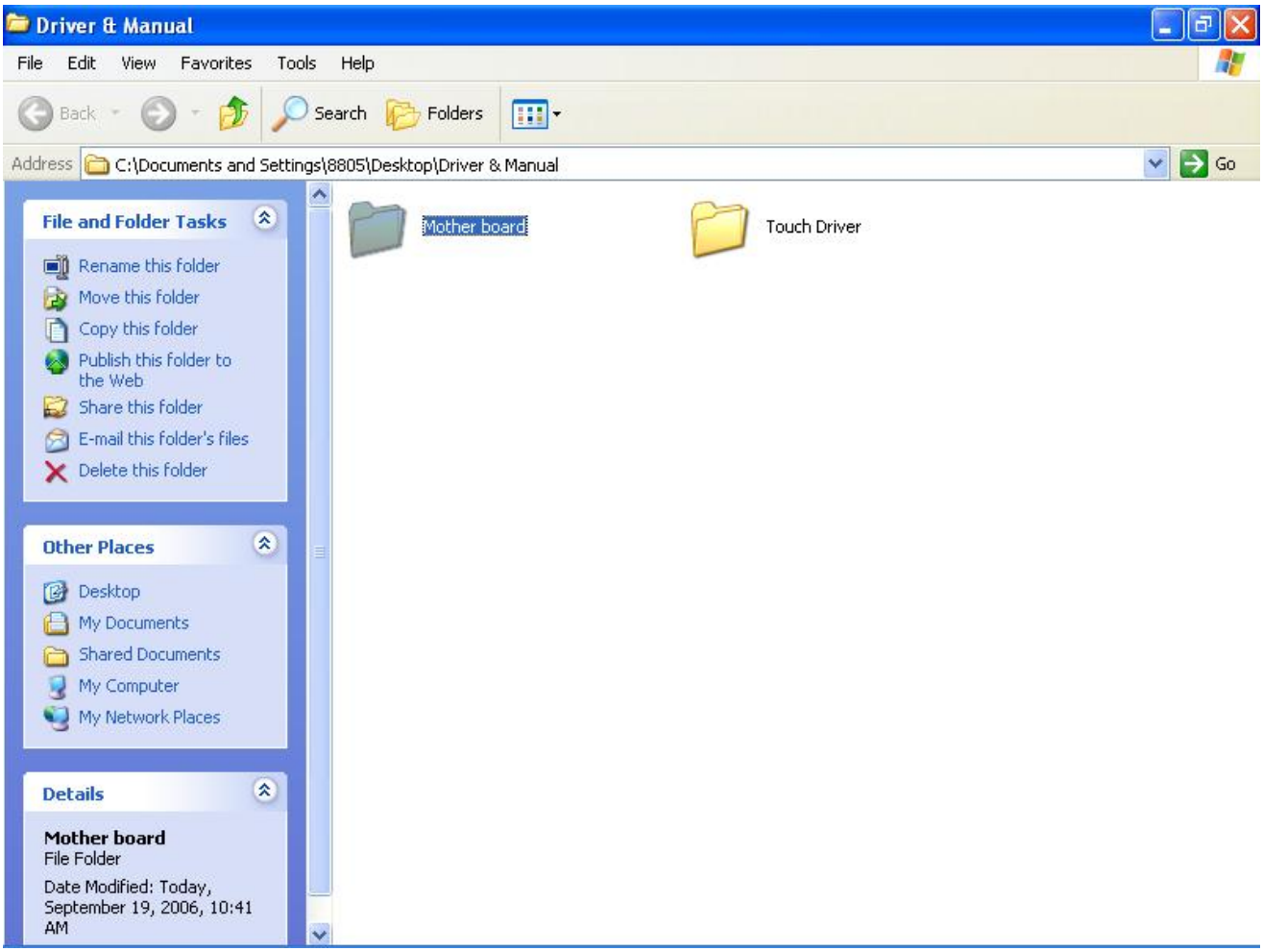
Above screen shows the installation process window.



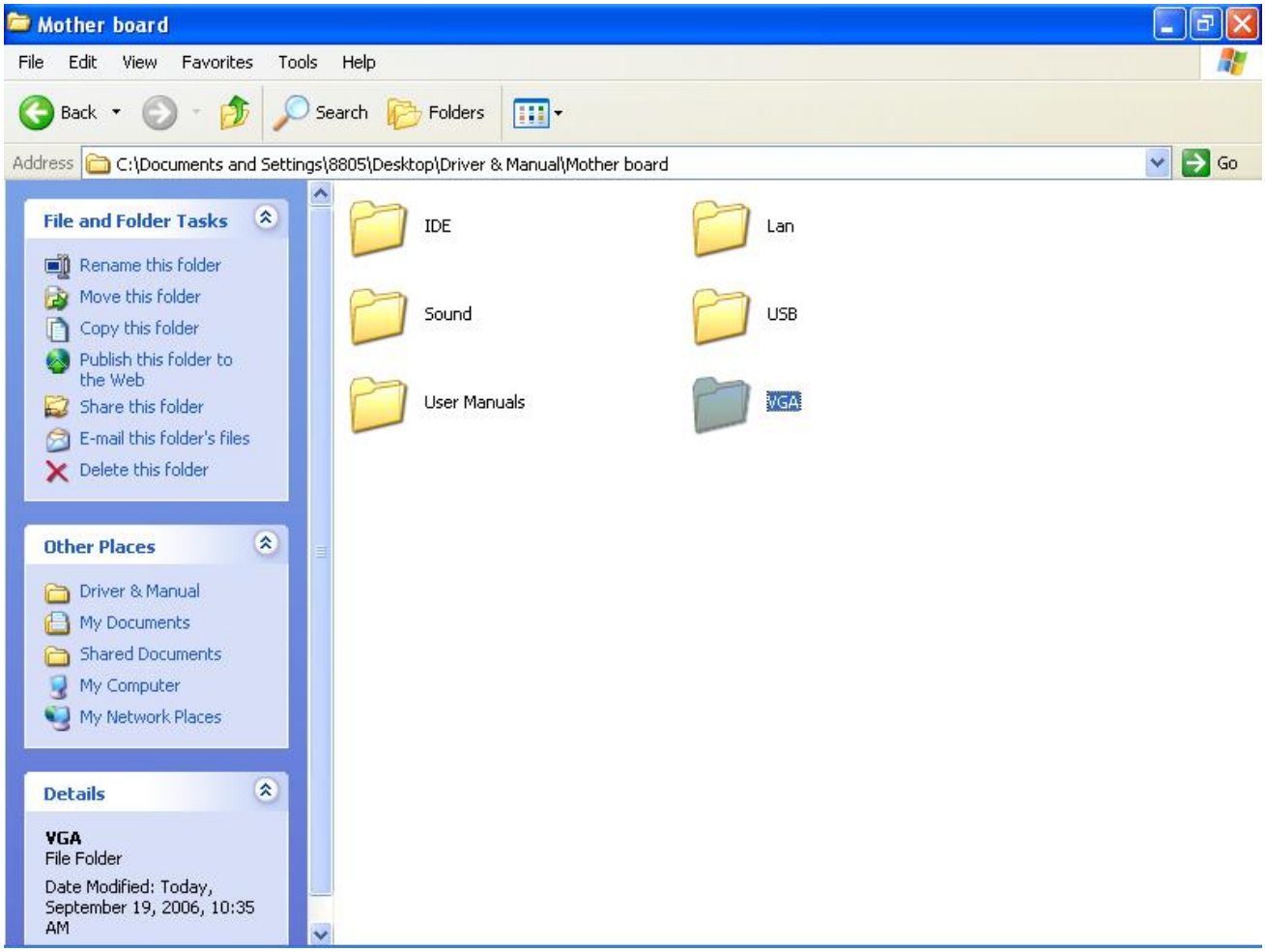
After installation complete select "finish".

VGA Drivers

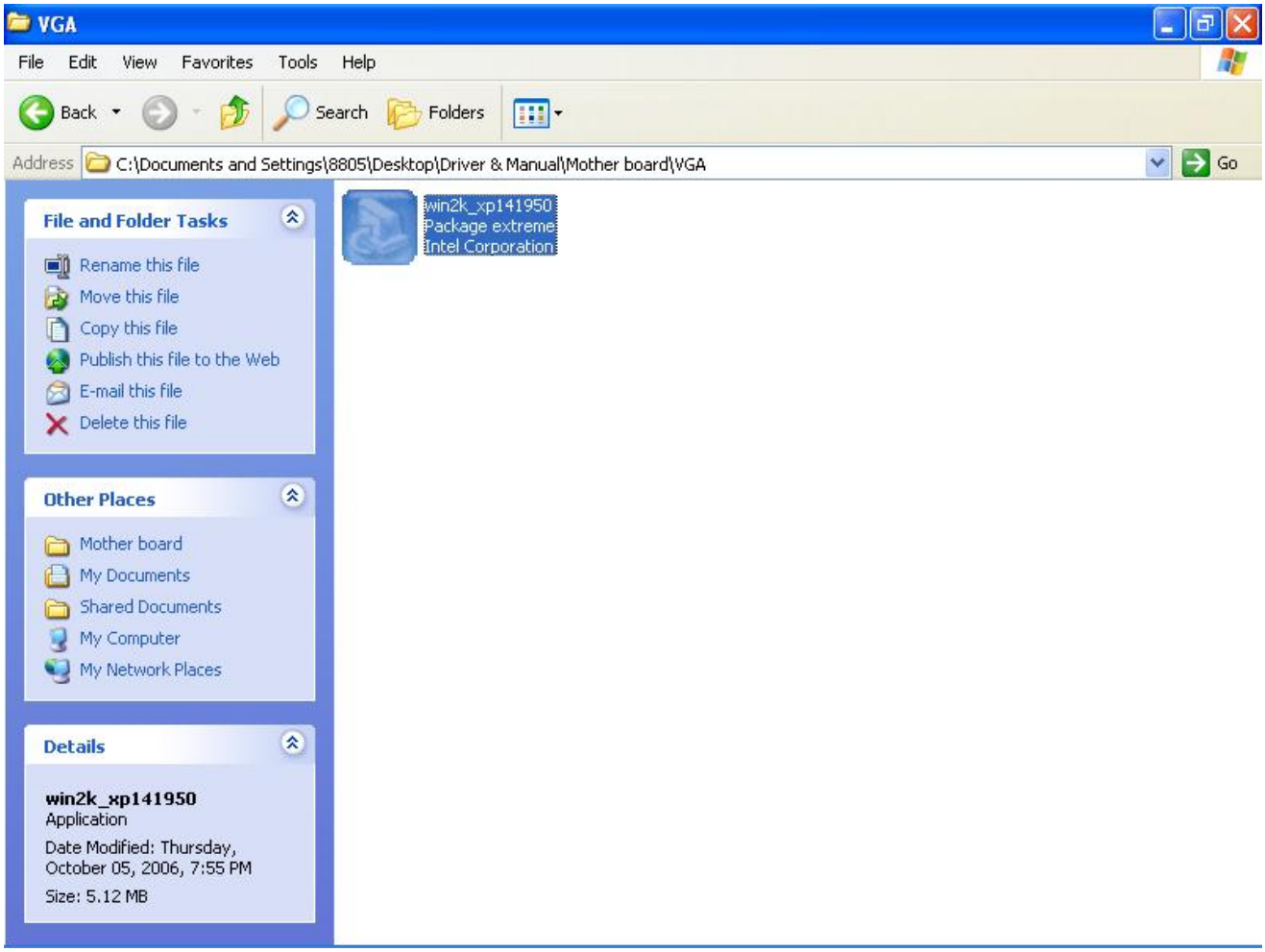
Insert CD Rom and select driver & manuals file folder.



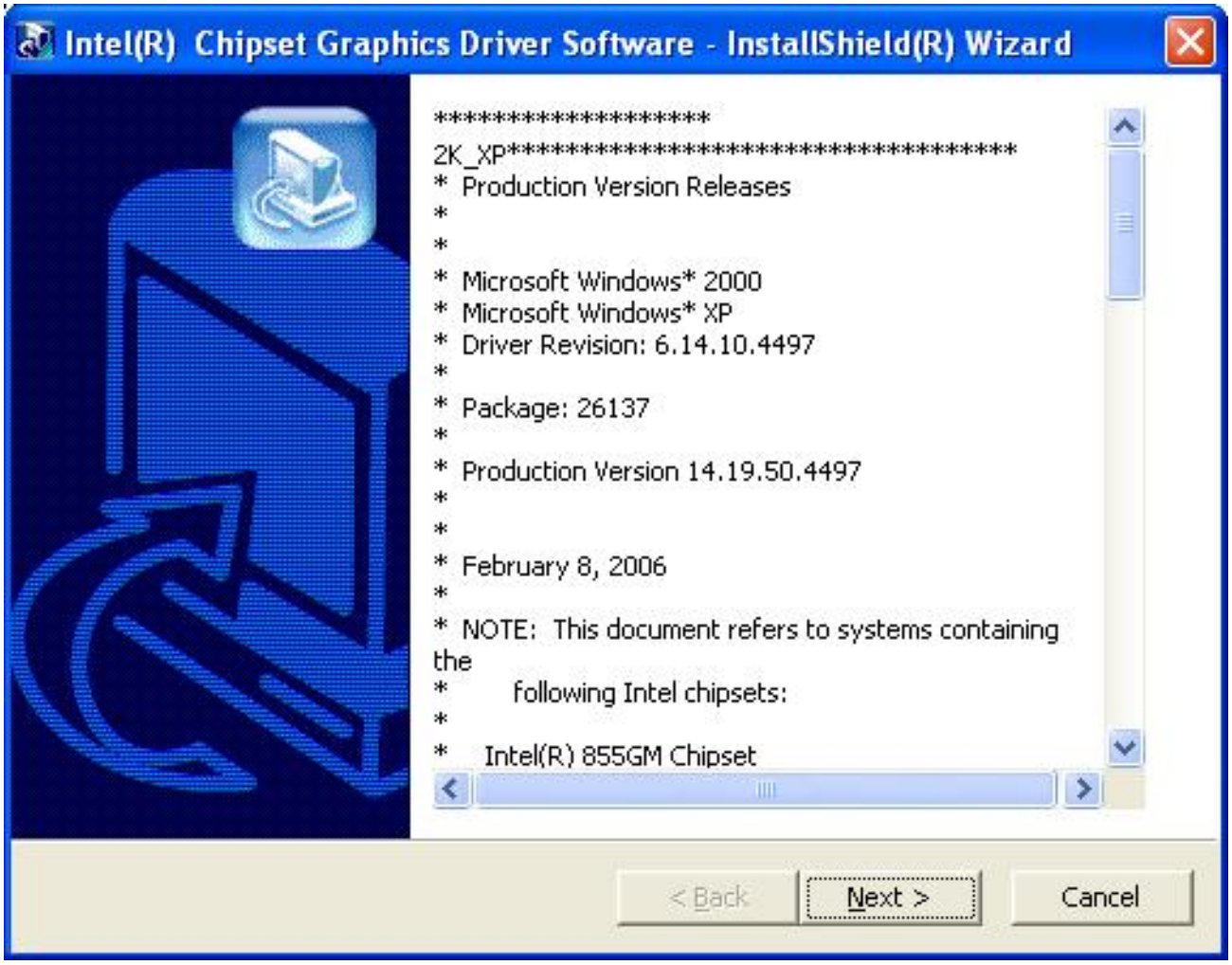
Select mother board folder.



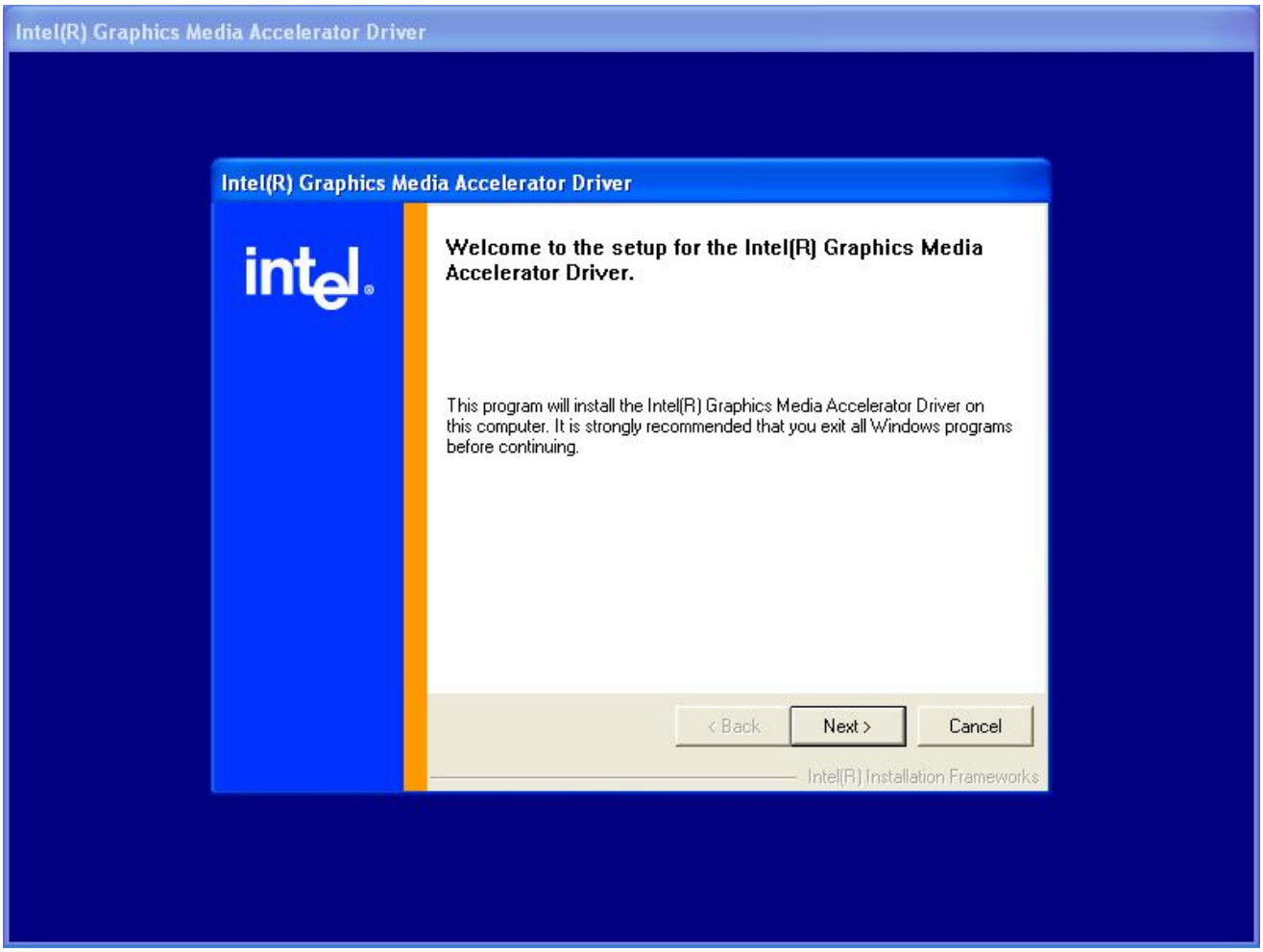
Select VGA folder.



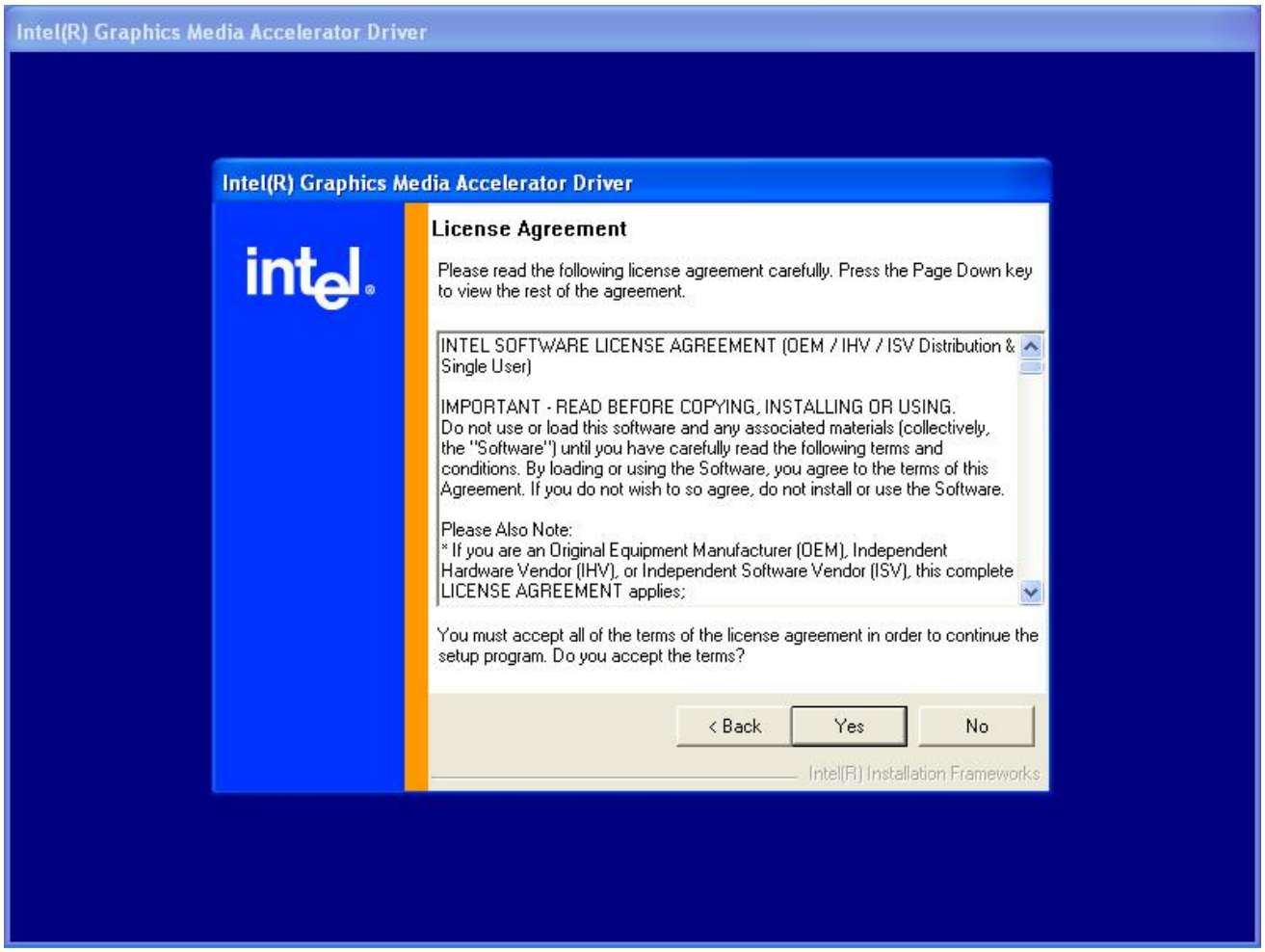
Access win2k_xp141950.exe



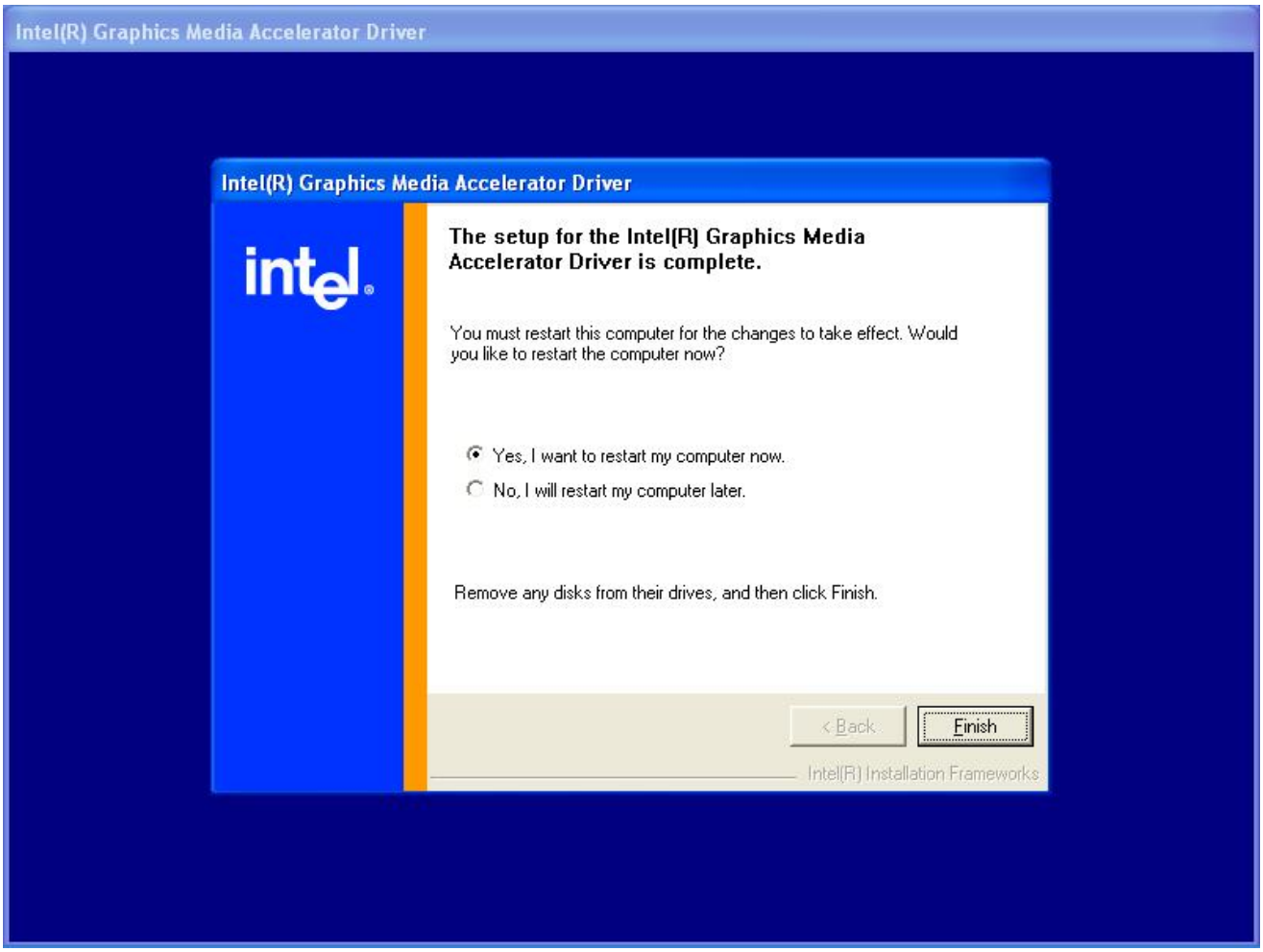
When setup window appear select the next step.



When next setup window appear select the next step to continue setup.



When setup window appear select the next step.



After installation

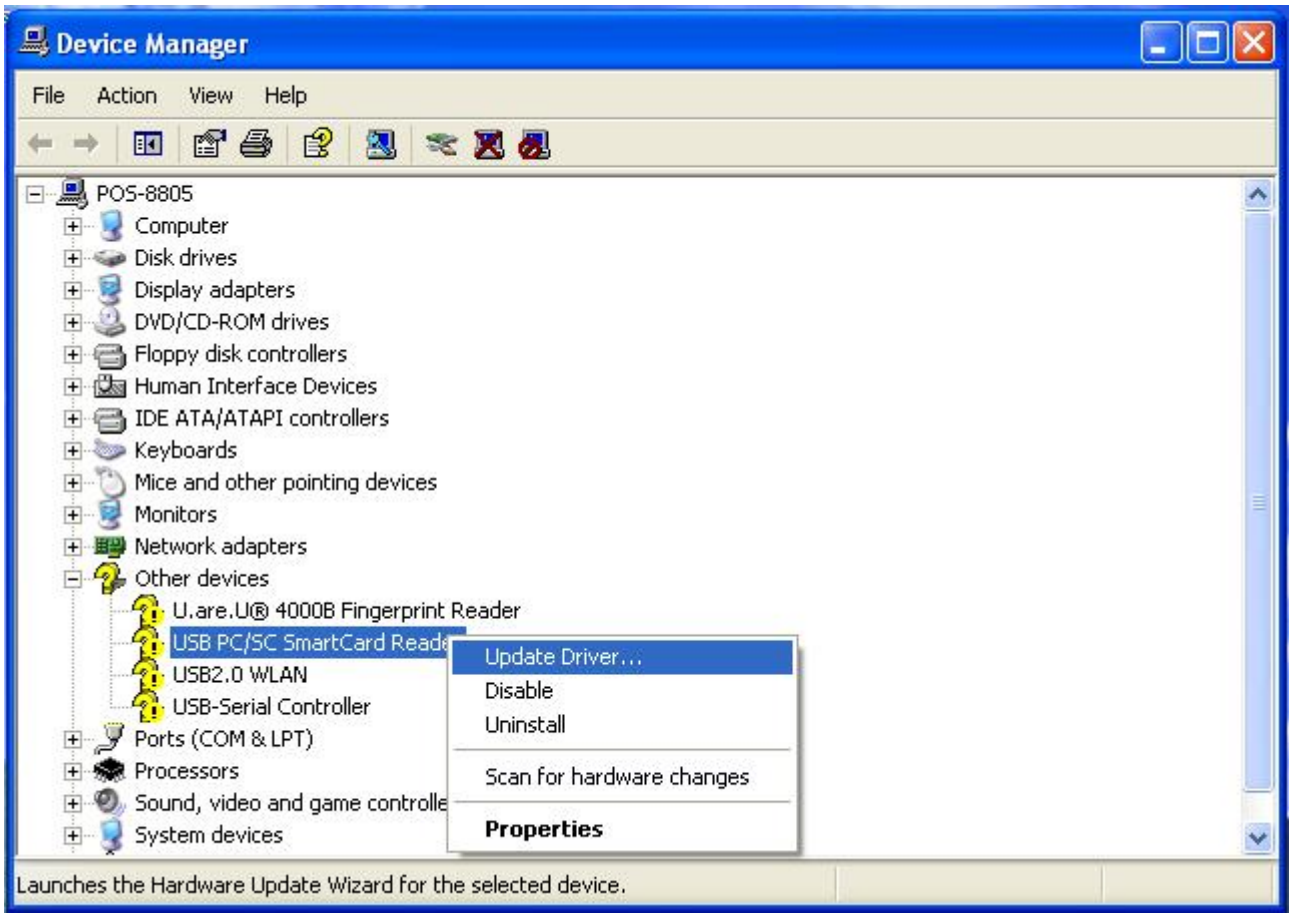
System will require reboot

select "YES"

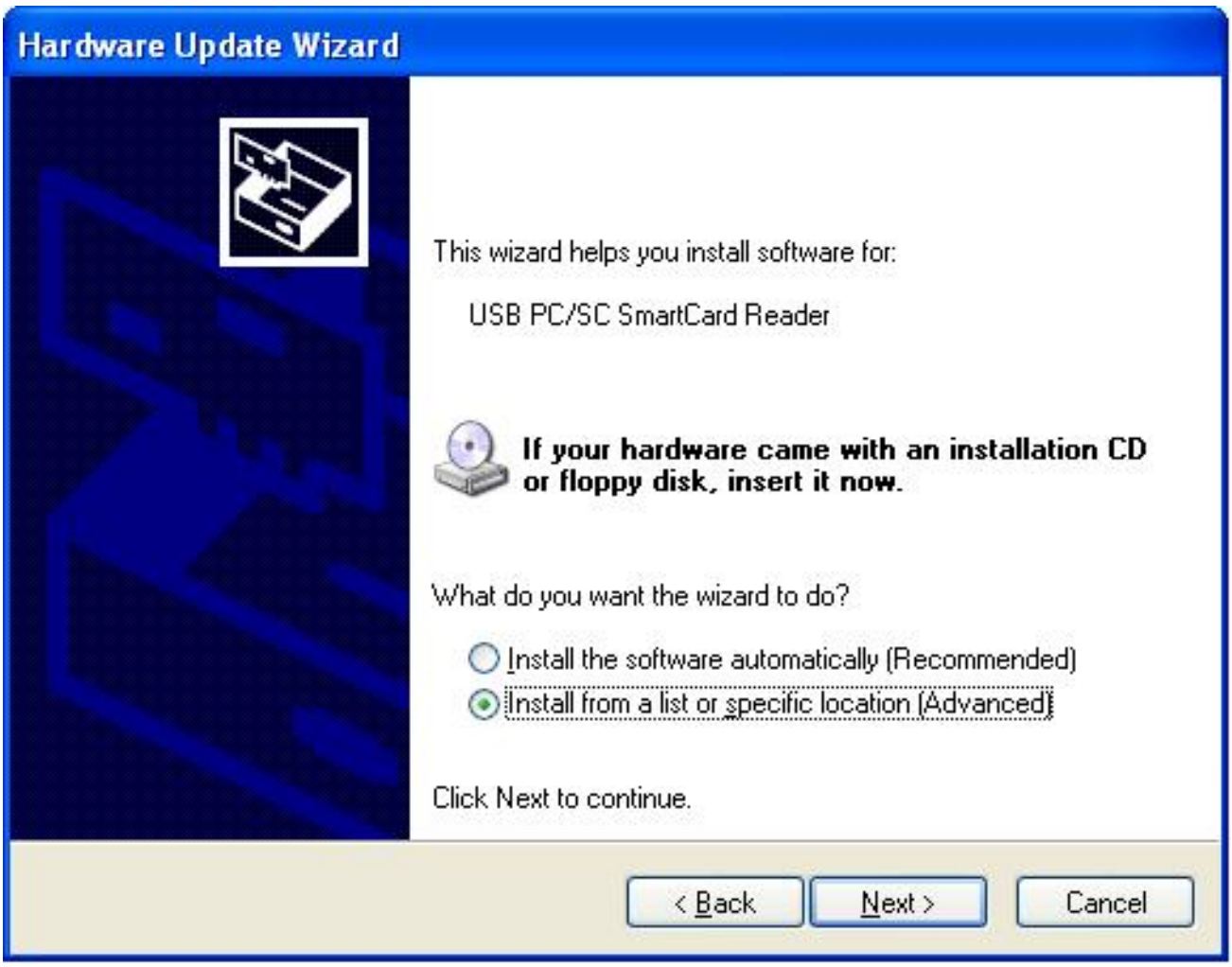
SmartCard Reader Driver

Right click "My Computer" and select the Properties.

Select "Device Manager".

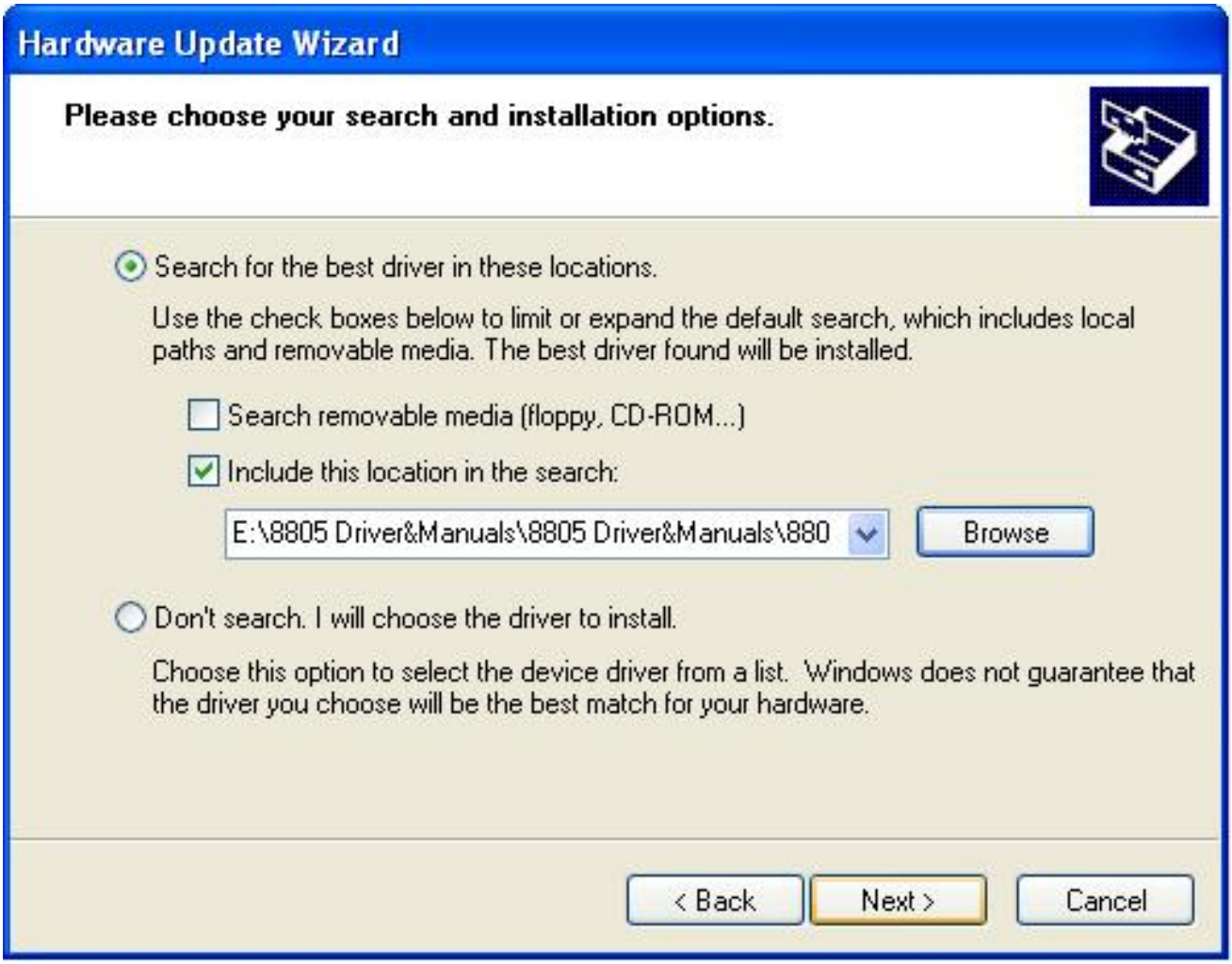


Select "USB PC/SC SmartCard Reader" and right click to choose "Update Driver.."



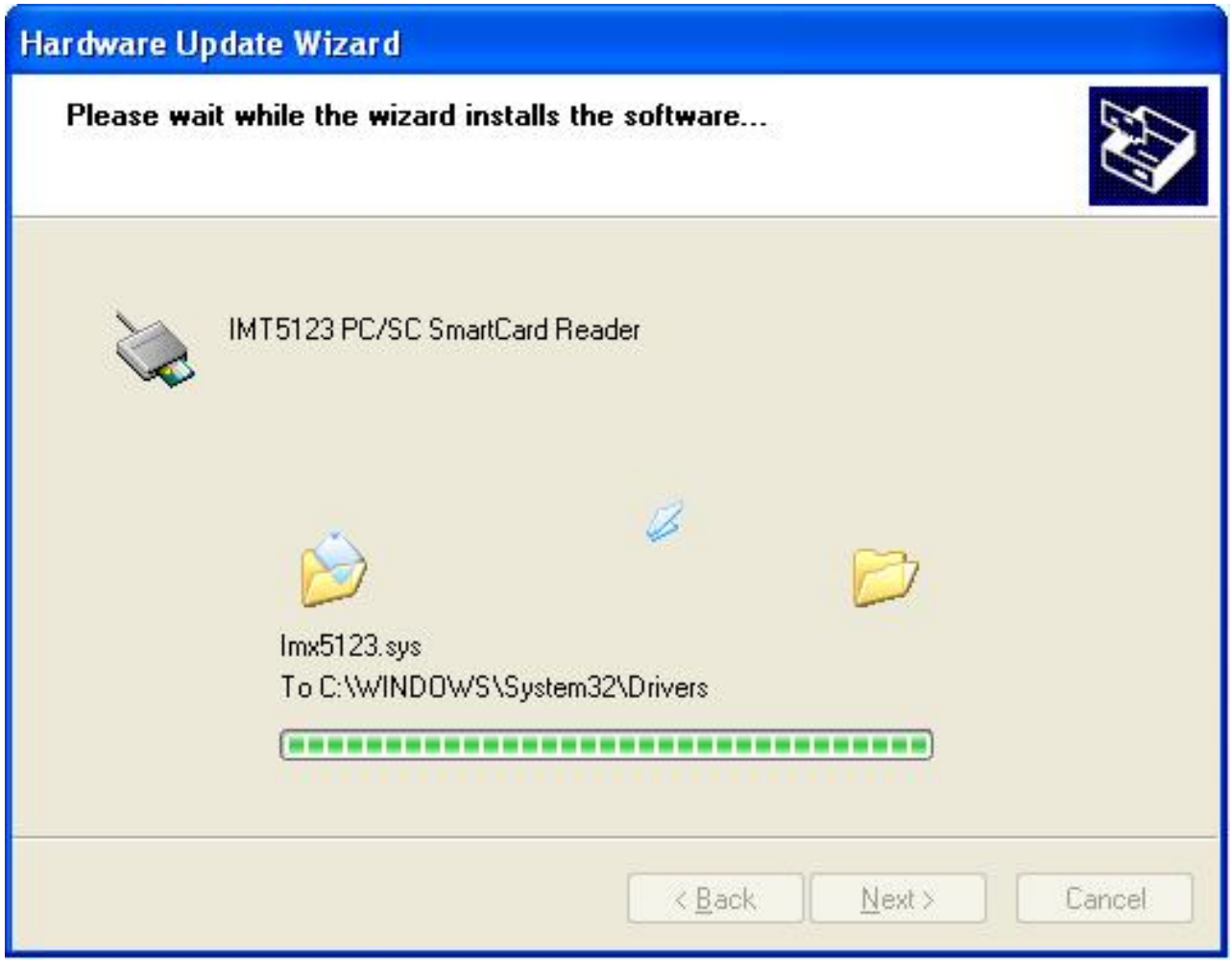
When the setup screen appears than to select "Advanced" & "Next" step.

Select "Smartcard USB Driver" folder.

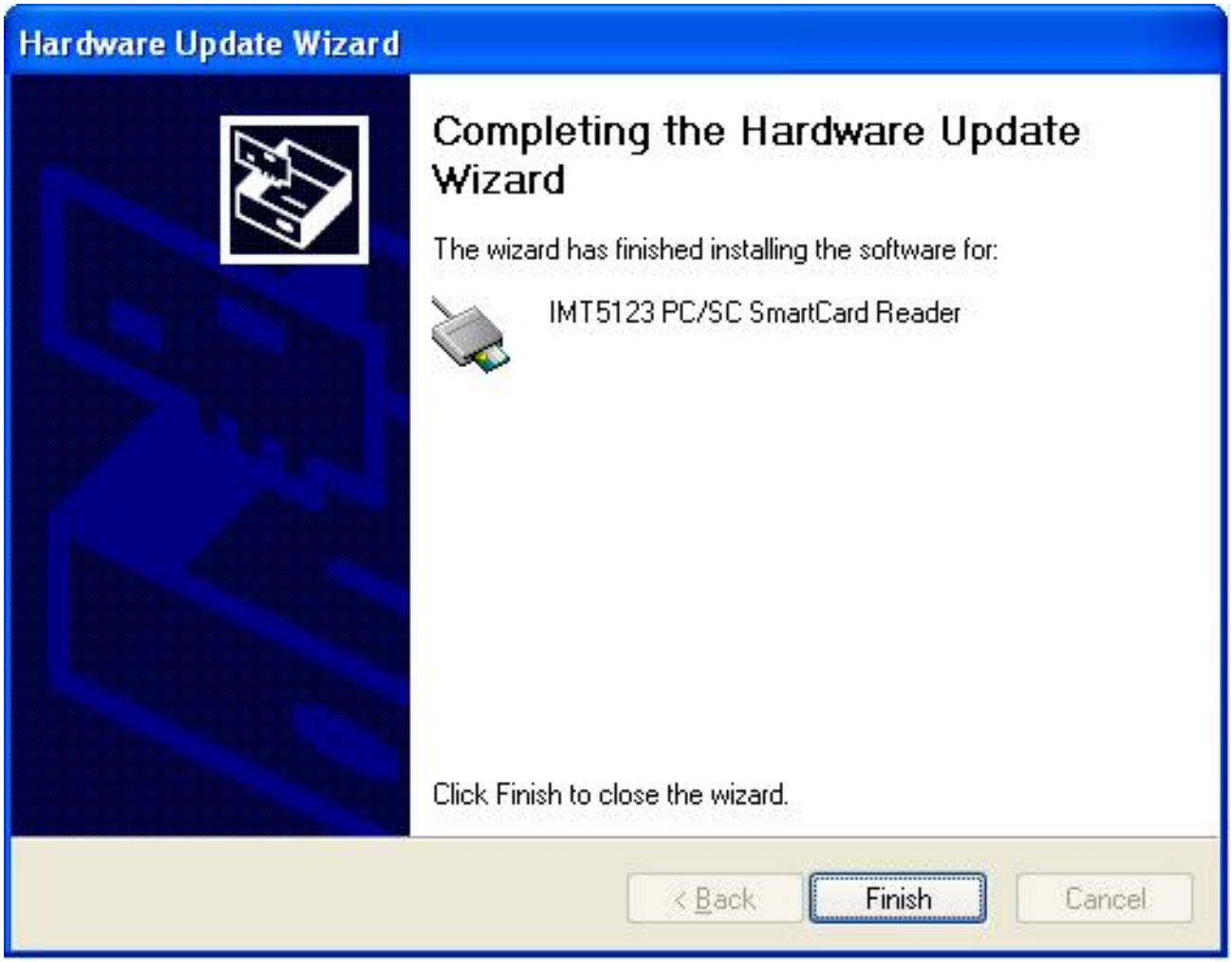


When next setup window appear select the next step to continue setup.

When next setup window appear select the "Continue Anyway" step to continue setup.



Above screen shows the installation process window.

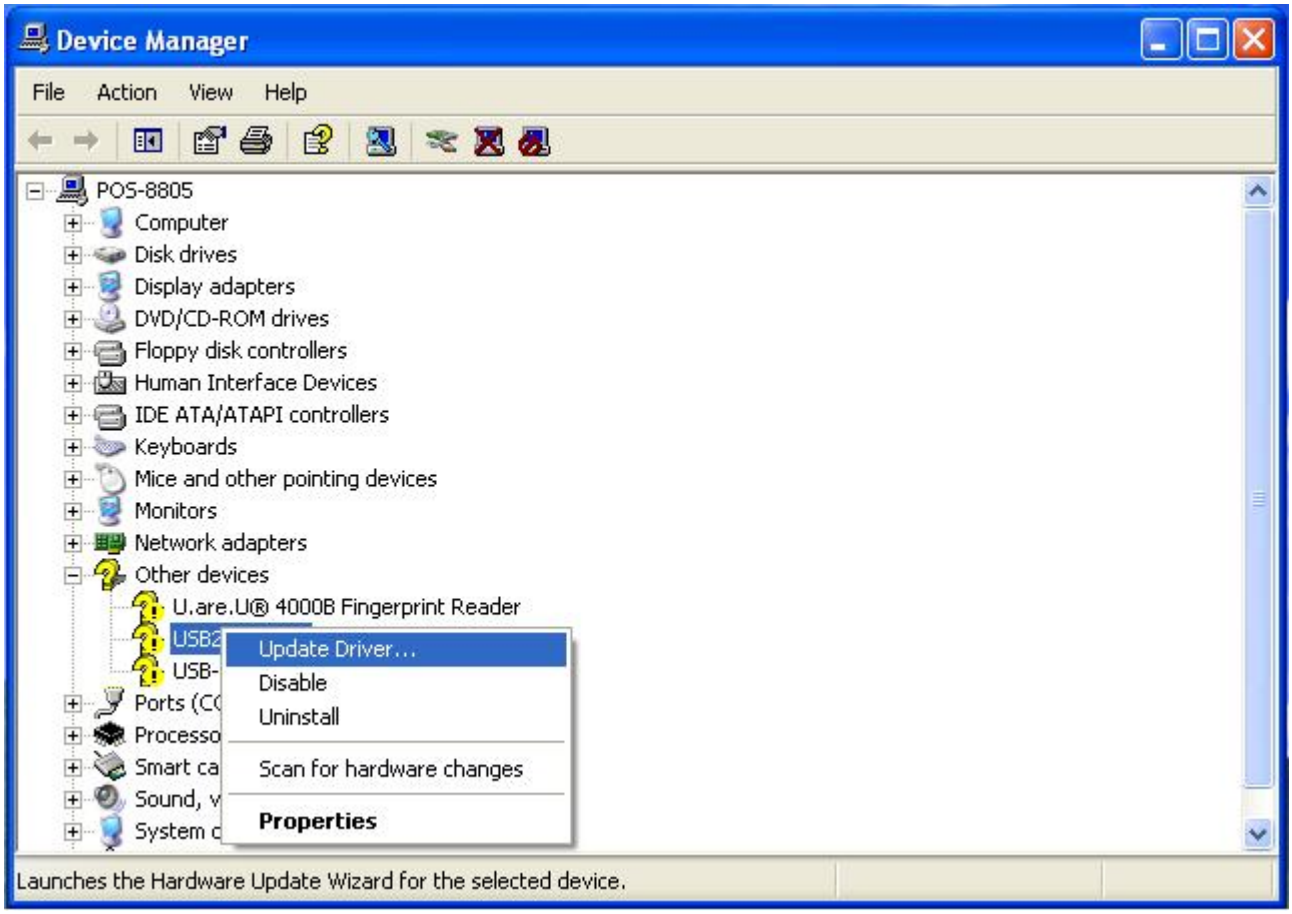


After installation complete select "Finish".

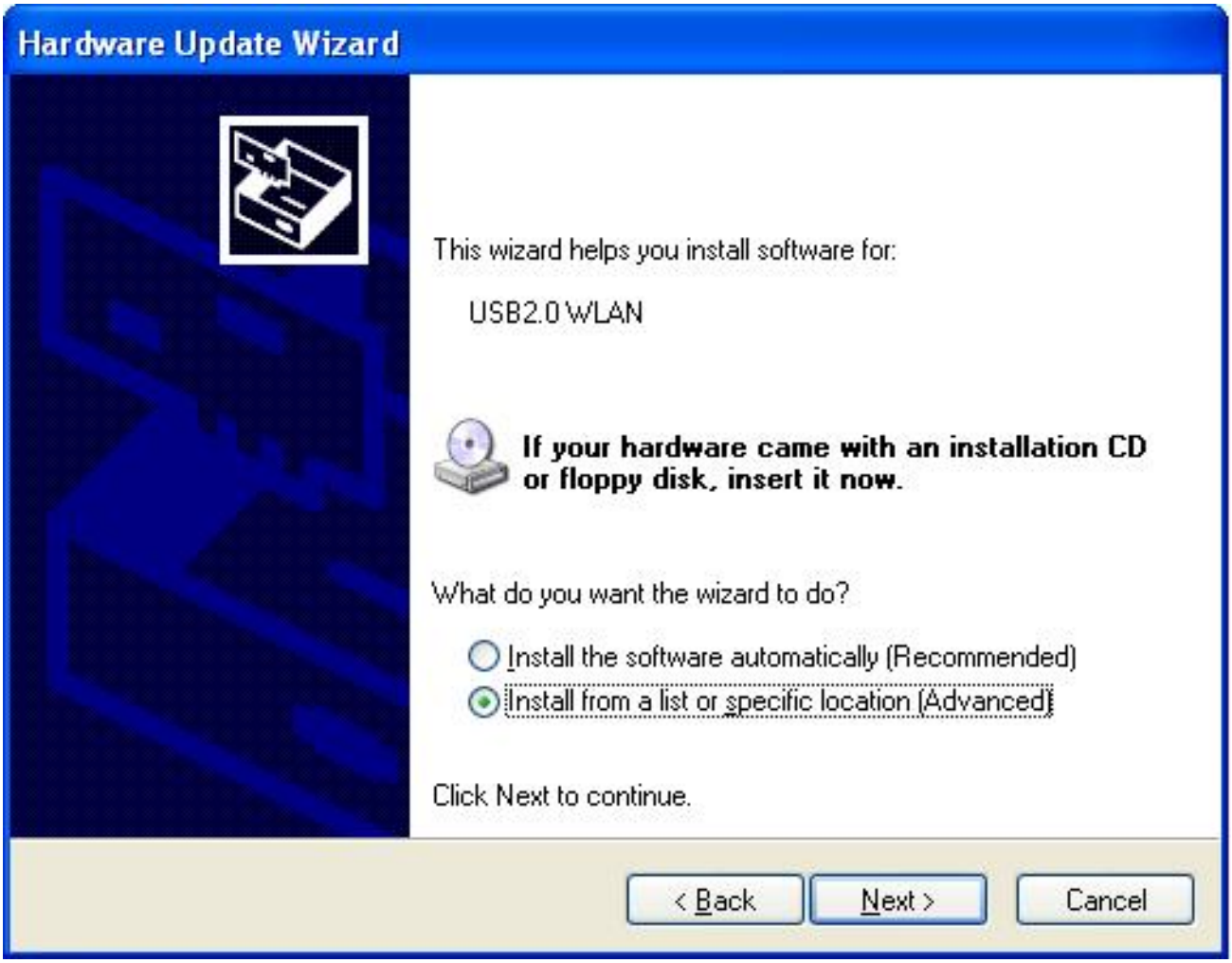
Wi-Fi Driver

Right click "My Computer" and select the Properties.

Select "Device Manager".

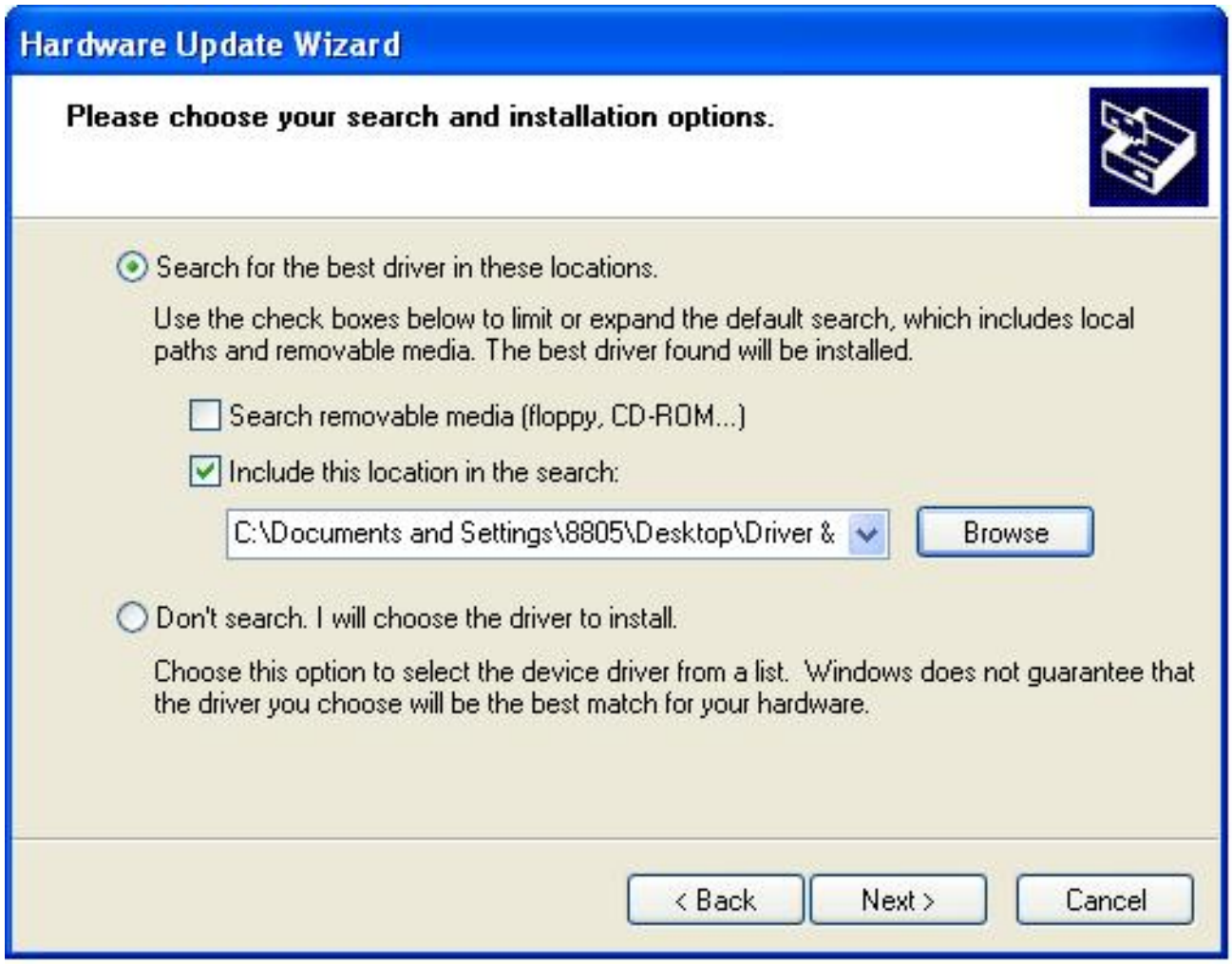


Select "USB2.0 WLAN" and right click to choose "Update Driver.."



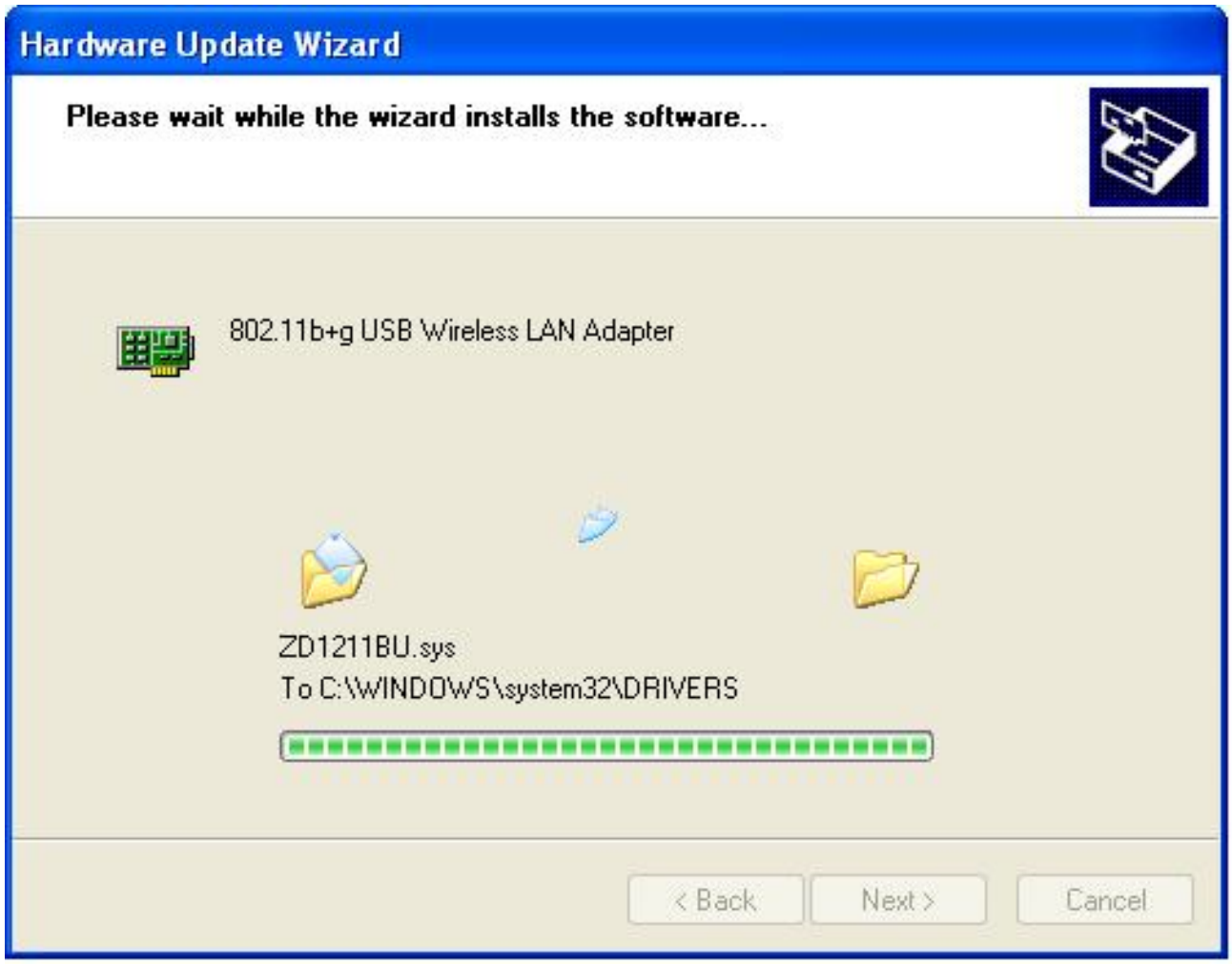
When the setup screen appears than to select "Advanced" & "Next" step.

Select Wi-Fi Driver folder.



When next setup window appear select the next step to continue setup.

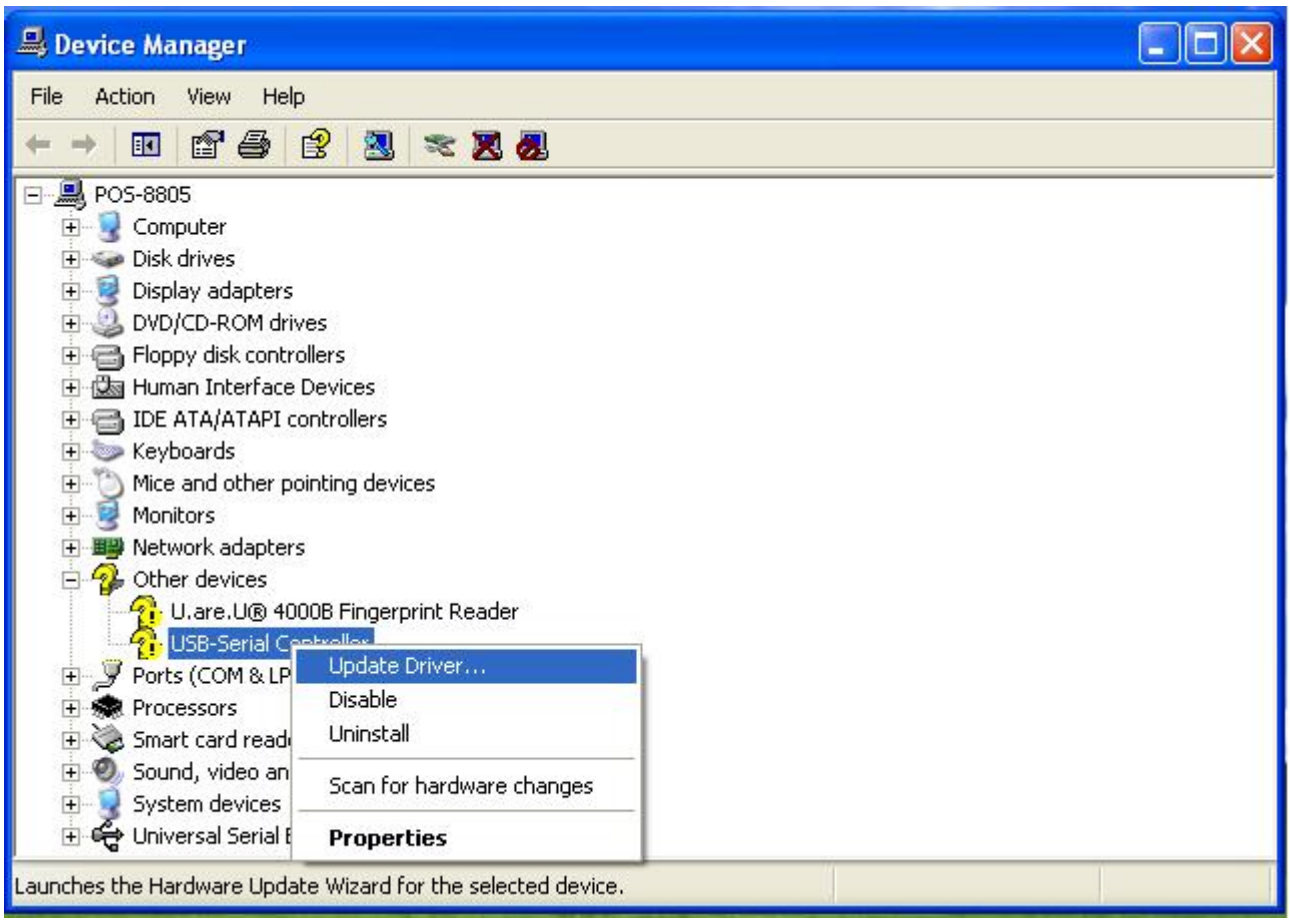
When next setup window appear select the "Continue Anyway" step to continue setup.



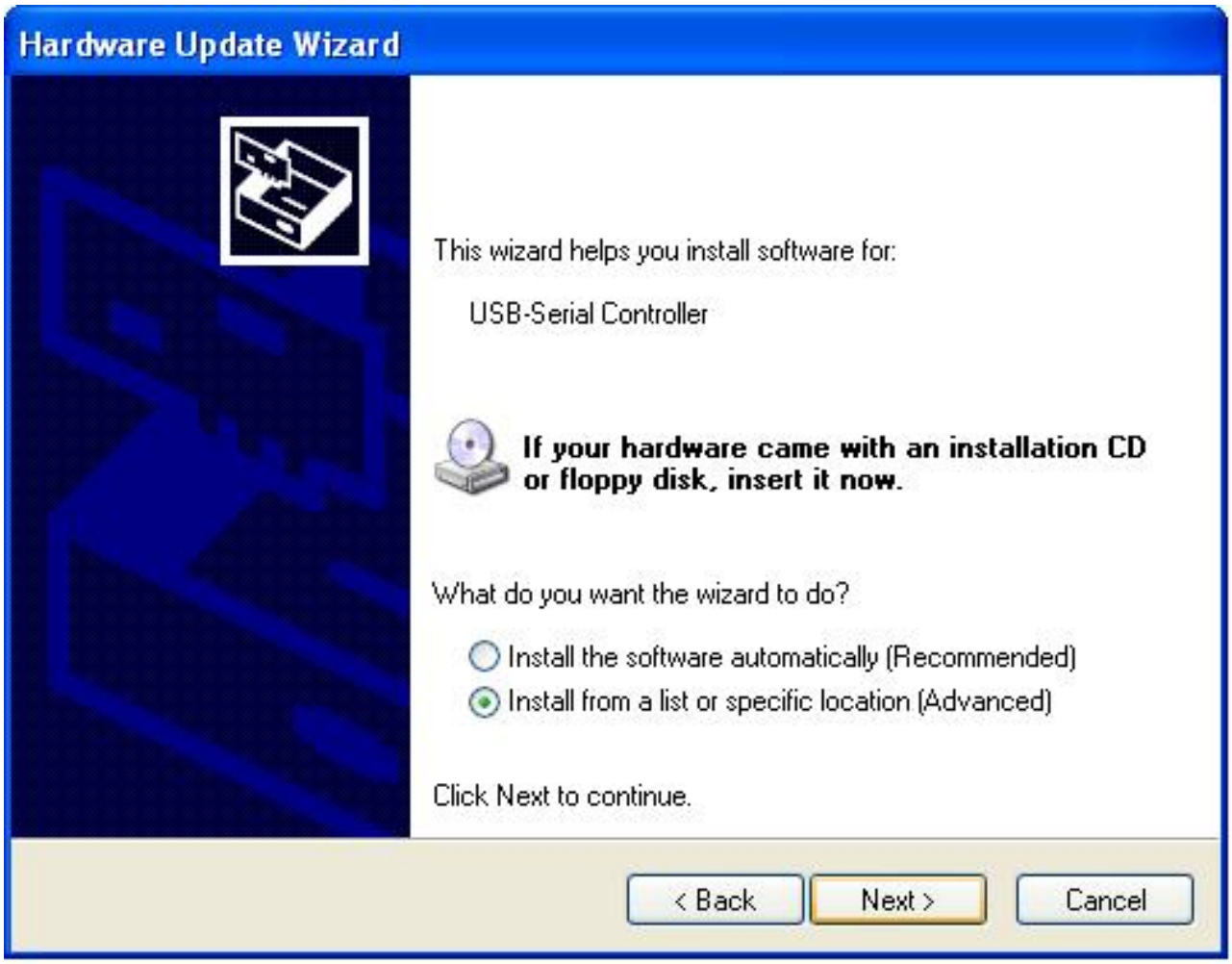
Above screen shows the installation process window.

After installation complete select "Finish".

Mifare Driver

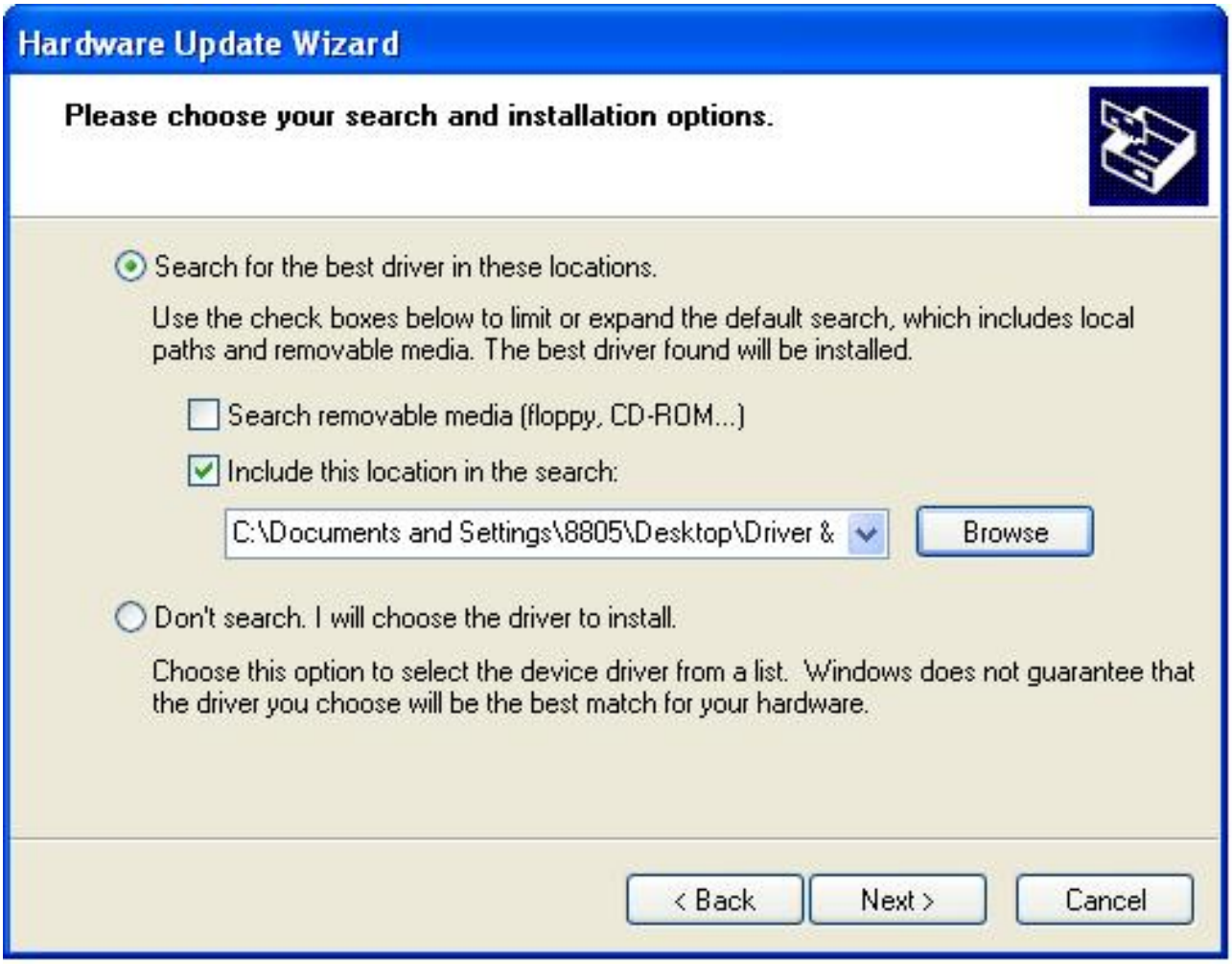


Select "USB-Serial Control" and right click to choose "Update Driver.."

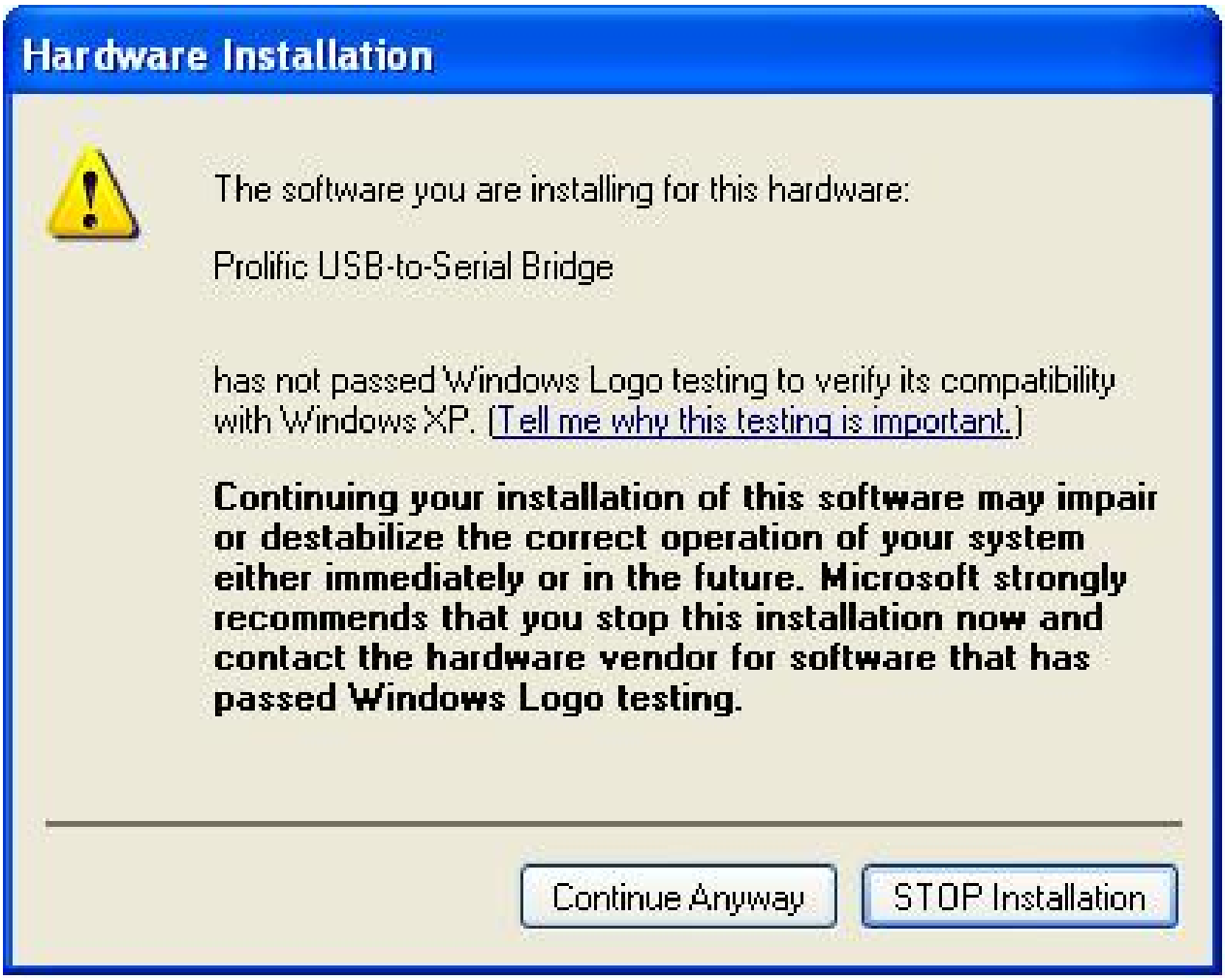


When the setup screen appears than to select "Advanced" & "Next" step.

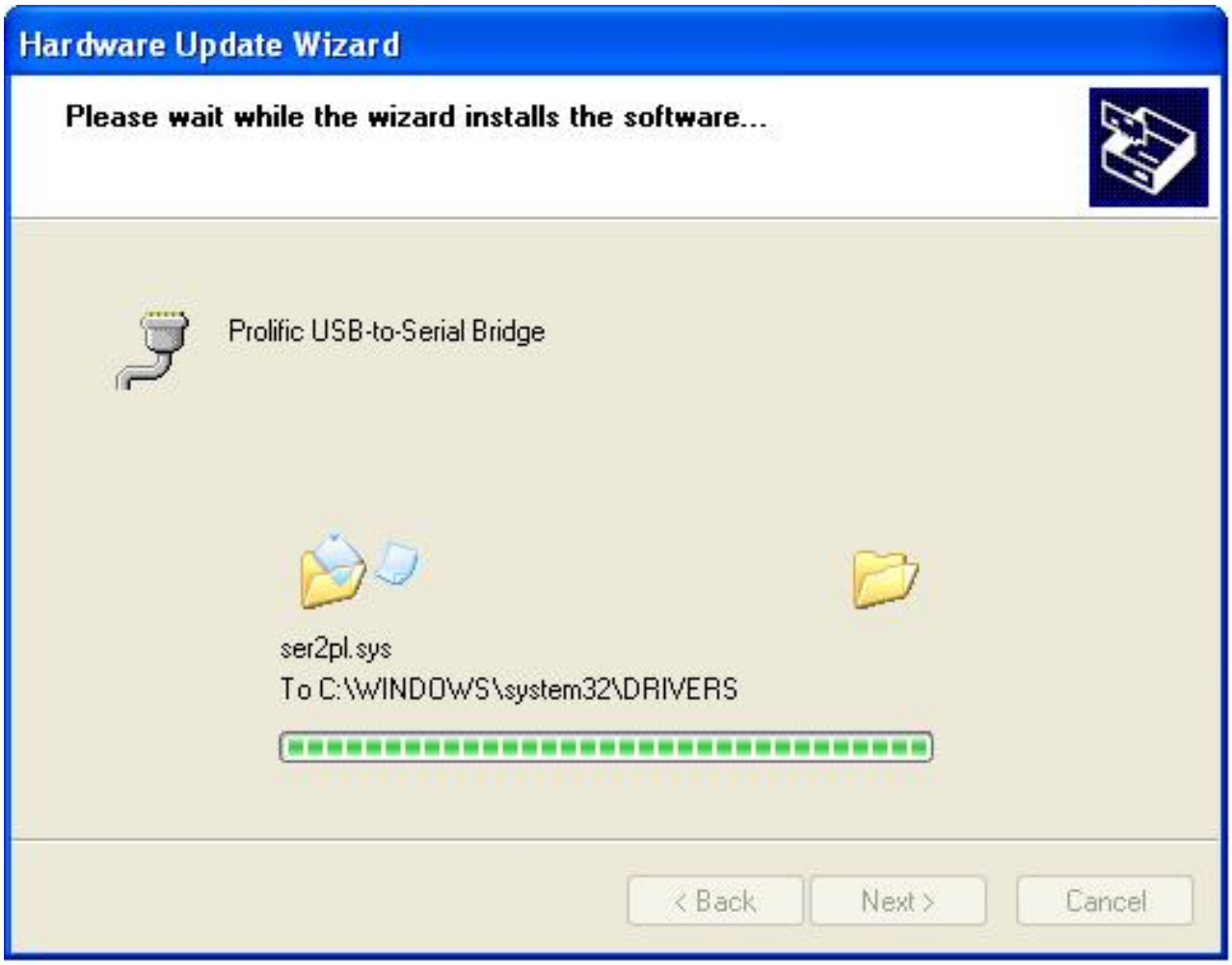
Select Mifare Driver folder.



When next setup window appear select the next step to continue setup.



When next setup window appear select the "Continue Anyway" step to continue setup.



Above screen shows the installation process window.

After installation complete select "Finish".

CHAPTER 4 Commands for Peripheral Controlling

RS232 Protocol: 9600, N, 8, 1

Follow the Jarltech standard command:
Send : <ESC> <Command code> <Length> <Data>
Response: <ESC> <Status code><length><data>

Note: 8802 controller return a beep after power on, delay about 3 sec then urn on the Main TFT Backlight, return another beep and then start to receive the RS232 commands.

Read products Model Name

Command : <ESC><00h> Length & Data don't need.

- **Response :** <ESC><00h><07h><JP-8802>

Read Products Version info

Command : <ESC><01h> Length & Data don't need.

Response: <ESC><01h> <Length depends on data ><8802 POS …… V1.0 ….>

Beeps command:

Command : <ESC><22h> <01h><data>
<Data> = 00h ~ FFh , means how many beeps.
Response: <ESC><22h><01h><data>

Sound command:

Command : <ESC><24h> <02h><m><n>
m: tempo (ASCII DEC 1~255)
n: Frequency (ASCII DEC 1~255)
Response: <ESC><24h><02h><m><n>

Example:
<ESC><24h><02h><dec 2><dec 191> for play sound "Do"

Example Sound frequency Table:

Do	Re	Mi	Fa	So	La	Si
				G- : 255	A- : 227	B- : 202
C : 191	D : 170	E : 151	F : 143	G : 127	A : 113	B : 101
C+: 95	D+: 85	E+: 75	F+: 71	G+: 63	A+: 57	B+: 50

Open Cash Drawer Command :

Before send command, please confirm the SW1 for provides voltage:

- SW1=OFF: 24V (default) SW1=ON: 12V

The SW2 is for setting auto response cash drawer sensor status after trigger cash drawer, or if someone manually to open the cash drawer or close the cash drawer
Then controller will auto response status to software application.

SW2=OFF: disable (default) SW2=ON: Enable

Open Cash Drawer 1

Command : <ESC> + 34h (dec 52)

When SW2=ON response: **<ESC> + 34h (dec 52) + N**
N = "A" (41h, dec 65) , means Cash Drawer 1 is close.
N = "B" (42h, dec 66) , means Cash Drawer 1 is open.

Open Cash Drawer 2

Command : <ESC> + 35h (dec 53)

When SW2=ON response: **<ESC> + 35h (dec 53) + N**
N = "A" (41h, dec 65), means Cash Drawer 2 is close.
N = "B" (42h, dec 66), means Cash Drawer 2 is open.

Detect Cash Drawer 1 Sensor
Command : <ESC> + 3Ah (dec 58)

Response: **<ESC> + 34h (dec 52) + N**
N = "A" (41h, dec 65) , means Cash Drawer 1 is close.
N = "B" (42h, dec 66) , means Cash Drawer 1 is open.

Detect Cash Drawer 2 Sensor
Command : <ESC> + 3Bh (dec 59)

Response: **<ESC> + 35h (dec 53) + N**
N = "A" (41h, dec 65), means Cash Drawer 2 is close.
N = "B" (42h, dec 66), means Cash Drawer 2 is open.

Turn on the main TFT LCD backlight
Command : <ESC> + 38h (dec 56)

Turn off the main TFT LCD backlight
Command : <ESC> + 39h (dec 57)

–

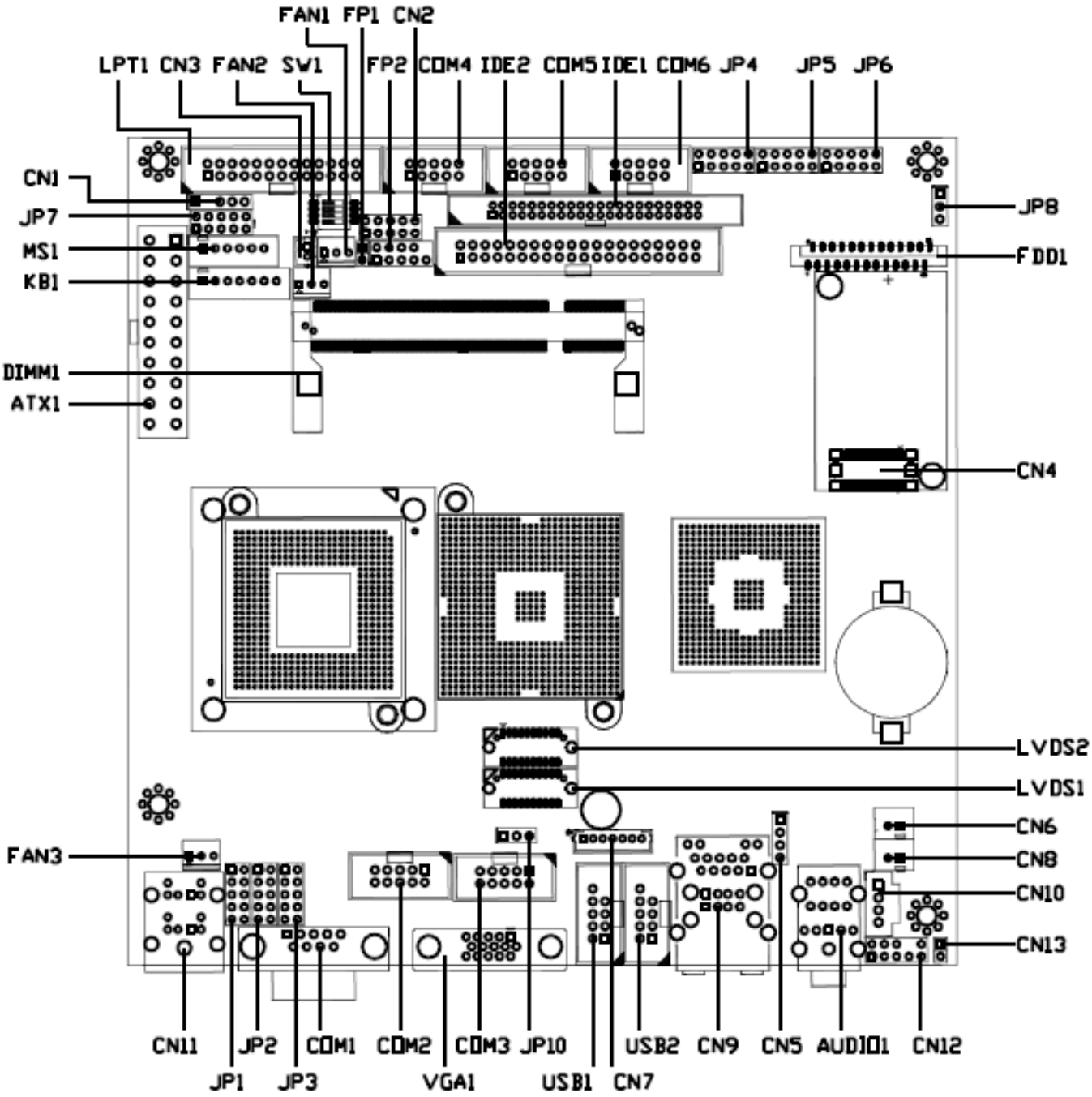
Support Epson command to open the cash drawer:

1. **[ESC] p m t1 t2**
2. **DLE DC4 n m t**

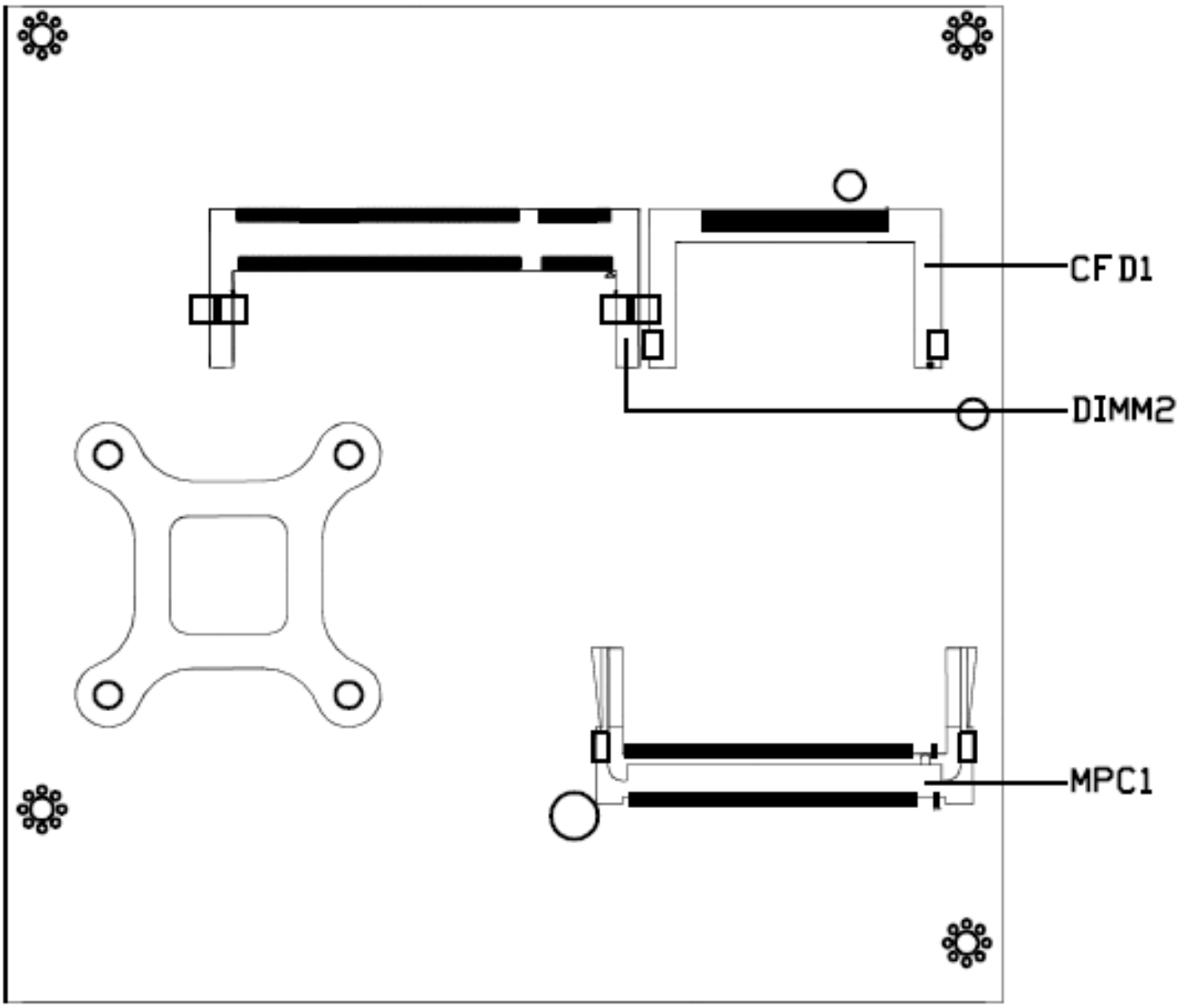
CHAPTER 5 Hardware Configuration

5-1. COMPONENT LOCATIONS

Placement Top View



Bottom View



Jumper List:

Location	Function	BIOS	Result
JP1	*COM1 Signal / Power Selection*		
JP2	*COM2 Signal / Power Selection*		
JP3	*COM3 Signal / Power Selection*		
JP4	*COM4 Signal / Power Selection*		
JP5	*COM5 Signal / Power Selection*		
JP6	*COM6 Signal / Power Selection*		
JP7	*LPT1 Signal / Power Selection*		
JP8	*CFD1 Master / Slave Selection*		
JP9	*Clear CMOS Selection*		
JP10	*LVDS Panel Power Selection*		

Rear Panel Connector List

Location	Function	BIOS	Result
AUDIO1	*Audio Phone Jack*		
COM1	*RS-232 Port-1 DB9 Connector*		
CN9	*RJ-45 + USB Port-0&1 Connector*		
CN11	*Mini-DIN PS/2 KB/MS Connector*		
VGA1	*CRT DB-15 Connector*		

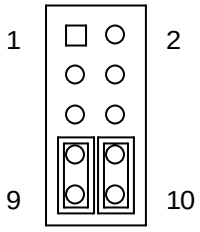
Connector List

Location	Function	BIOS	Result
ATX1	*ATX Power Connector*		
CFD1	*Compact Flash type I/II Connector*		
COM2	*RS-232 / 422 / 485 Port-2 Box Header*		
COM3	*RS-232 Port-3 Box Header*		
COM4	*RS-232 Port-4 Box Header*		
COM5	*RS-232 Port-5 Box Header*		
COM6	*RS-232 Port-6 Box Header*		
CN1	*IrDA Pin Header*		
CN2	*Digital Input / Digital Output Pin Header*		

Location	Function	BIOS	Result
CN3	*SM Bus Wafer*		
CN4	*Modem Card B2B Connector*		
CN5	*S/PDIF Pin Header*		
CN6	*Left Audio AMP Output Wafer*		
CN7	*LVDS Backlight Inverter Wafer*		
CN8	*Right Audio AMP Output Wafer*		
CN10	*CD-In Connector*		
CN12	*Front Panel Audio Pin Header*		
CN13	*Audio AMP Volume Control Pin Header*		
DIMM1	*Primary DDR SO-DIMM Socket*		
DIMM2	*Secondary DDR SO-DIMM Socket*		
FAN1	*FAN 1 Connector*		
FAN2	*FAN 2 Connector*		
FAN3	*FAN 3 Connector*		
FDD1	*Slim Type Floppy Connector*		
FP1	*Power LED Pin Header*		
FP2	*Front Panel Pin Header*		
IDE1	*Primary 44-pin IDE Box Header*		
IDE2	*Secondary 40-pin IDE Box Header*		
KB1	*Internal PS/2 Keyboard Wafer*		
LPT1	*Parallel Port Box Header*		
LVDS1	*Channel 1 LVDS Connector*		
LVDS2	*Channel 2 LVDS Connector*		
MPCI1	*Mini-PCI Socket*		
MS1	*Internal PS/2 Mouse Wafer*		
SW1	*External PS/2 KB/MS Switch*		
USB1	*USB Port-2&3 Box Header*		
USB2	*USB Port-4&5 Box Header*		

Jumper Setting：

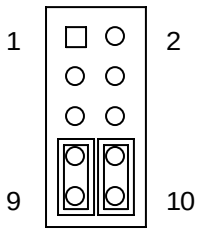
JP1 COM1 Signal / Power Selection



Jumper	Setting	Function
1	1-3 Short	Pin 1 of COM1 = +12V
	3-5 Short	Pin 1 of COM1 = +5V
	5-7 Short	Pin 1 of COM1 = +5V
	7-9 Short	Pin 1 of COM1 = DCD
2	2-4 Short	Pin 9 of COM1 = +12V
	4-6 Short	Pin 9 of COM1 = +5V
	6-8 Short	Pin 9 of COM1 = +5V
	8-10 Short	Pin 9 of COM1 = RI

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

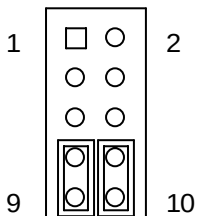
JP2 COM2 Signal / Power Selection



Jumper	Setting	Function
1	1-3 Short	Pin 1 of COM2 = +12V
	3-5 Short	Pin 1 of COM2 = +5V
	5-7 Short	Pin 1 of COM2 = +5V
	7-9 Short	Pin 1 of COM2 = DCD@RS232, TX+@RS422, RTX+@RS485
2	2-4 Short	Pin 8 of COM1 = +12V
	4-6 Short	Pin 8 of COM1 = +5V
	6-8 Short	Pin 8 of COM1 = +5V
	8-10 Short	Pin 8 of COM1 = RI

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

JPx COMx Signal / Power Selection（x = 3, 4, 5, 6）

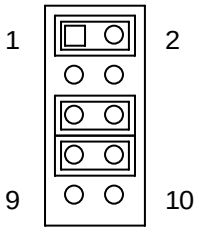


Jumper	Setting	Function
1	1-3 Short	Pin 1 of COMx = +12V
	3-5 Short	Pin 1 of COMx = +5V
	5-7 Short	Pin 1 of COMx = +5V

	7-9 Short	Pin 1 of COMx = DCD
2	2-4 Short	Pin 8 of COMx = +12V
	4-6 Short	Pin 8 of COMx = +5V
	6-8 Short	Pin 8 of COMx = +5V
	8-10 Short	Pin 8 of COMx = RI

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

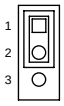
JP7 LPT1 Signal / Power Selection



Jumper	Setting	Function
1	1-2 Short	Pin 4 of LPT1 = ERR#
	1-3 Short	Pin 4 of LPT1 = +5V
2	4-6 Short	Pin 6 of LPT1 = +5V
	5-6 Short	Pin 6 of LPT1 = INIT#
3	7-8 Short	Pin 8 of LPT1 = SLIN#
	7-9 Short	Pin 8 of LPT1 = +5V

Pitch:2.54mm [YIMTEX 3322*05SAGR(6T)]

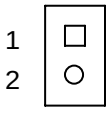
JP8 CFD1 Master / Slave Selection



Setting	Status
1-2 Short	Master
2-3 Short	Slave

Pitch:2.54mm [YIMTEX 3321*03SAGR]

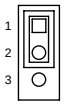
JP9 Clear CMOS Selection



Setting	Status
1-2 Open	Normal Operation
1-2 Short	Clear CMOS

Pitch:2.54mm [YIMTEX 3321*02SAGR]

JP10 LVDS Panel Power Selection

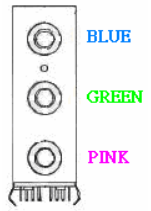


Jumper	Status
1-2 Short	+3.3V
2-3 Short	+5V

Pitch:2.54mm [YIMTEX 3321*03SAGR]

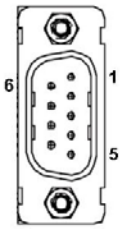
Rear Panel Pin Assignment：

AUDIO1 Audio Phone Jack



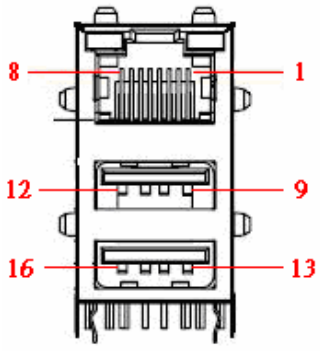
	Signal Name
BLUE	LINE IN
GREEN	LINE OUT
PINK	MIC IN

COM1 RS-232 Port-1 DB9 Connector



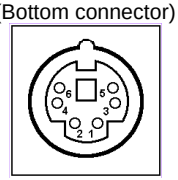
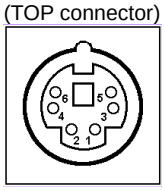
Pin	Signal
1	+5V / +12V / DCD, Data carrier detect **Note：Selected by JP1**
2	RXD, Receive data
3	TXD, Transmit data
4	DTR, Data terminal ready
5	GND, ground
6	DSR, Data set ready
7	RTS, Request to send
8	CTS, Clear to send
9	+5V / +12V / RI, Ring indicator **Note：Selected by JP1**

CN9 RJ-45 + USB Port-0&1 Connector

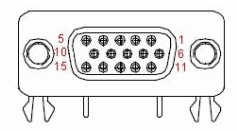


Pin	Signal	Pin	Signal
1	MDI[0]+	9	+5V
2	MDI[0]-	10	USB0-
3	MDI[1]+	11	USB0+
4	MDI[1]-	12	GND
5	MDI[2]+	13	+5V
6	MDI[2]-	14	USB1-
7	MDI[3]+	15	USB1+
8	MDI[3]-	16	GND

CN11 Mini-DIN PS/2 KB/MS Connector

Pin	Signal	Function	COMMENTS
1	KBDAT	Keyboard Data	Keyboard Interface (Bottom connector) 
2	NC	No Connect	
3	GND	Ground	
4	KB5V	Power	
5	KBCLK	Keyboard Clock	
6	NC	No Connect	
7	MSDAT	Mouse Data	Mouse Interface (TOP connector) 
8	NC	No Connect	
9	GND	Ground	
10	KB5V	Power	
11	MSCLK	Mouse Clock	
12	NC	No Connect	

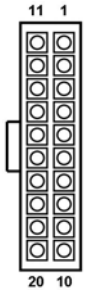
VGA1 CRT DB-15 Connector



Signal Name	Pin	Pin	Signal Name
Red	1	2	Green
Blue	3	4	NC
GND	5	6	GND
GND	7	8	GND
VCC	9	10	GND
NC	11	12	DDC2B data
HSYNC	13	14	VSYNC
DDC2B clock	15		

Connector Pin Assignment：

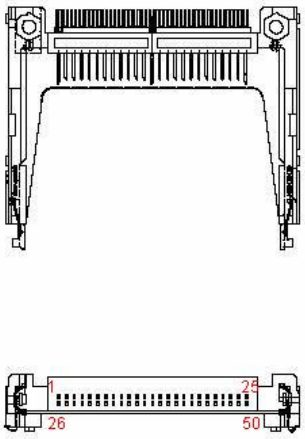
ATX1 ATX Power Connector



Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	NC
3	GND	13	GND
4	+5V	14	PS_ON#
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	PWRGOOD	18	NC
9	+5VSB	19	+5V
10	+12V	20	+5V

[YIMTEX 576MWA2*10STR]

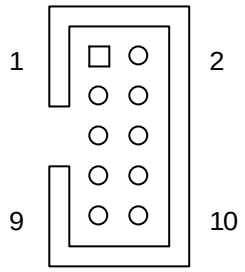
CFD1 Compact Flash type I/II Connector



Signal Name	Pin	Pin	Signal Name
GND	1	26	GND
SDD3	2	27	SDD11
SDD4	3	28	SDD12
SDD5	4	29	SDD13
SDD6	5	30	SDD14
SDD7	6	31	SDD15
SDCS#1	7	32	SDCS#3
GND	8	33	GND
GND	9	34	SDIOR#
GND	10	35	SDIOW#
GND	11	36	+5V
GND	12	37	IDEIRQ15
+5V	13	38	+5V
GND	14	39	PCSEL
GND	15	40	NC
GND	16	41	SIDERST#
GND	17	42	SIORDY
SDA2	18	43	NC
SDA1	19	44	SDDACK#
SDA0	20	45	IDEACT#
SDD0	21	46	S66DECT
SDD1	22	47	SDD8
SDD2	23	48	SDD9
IOIS16#	24	49	SDD10
GND	25	50	GND

[晉祥 CF1A-71041-00E01]

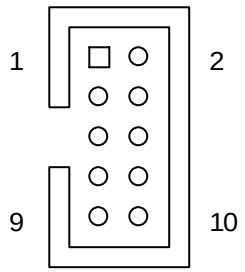
COM2 RS-232 / 422 / 485 Port-2 Box Header



Pin	Signal
1	+5V / +12V / RS-232：DCD, Data carrier detect RS-422：TX+ RS-485：RTX+ **Note：Selected by JP2**
2	DSR, Data set ready
3	RS-232：RXD, Receive data RS-422：RX+ RS-485：N/A
4	RTS, Request to send
5	RS-232：TXD, Transmit data RS-422：TX- RS-485：RTX-
6	CTS, Clear to send
7	RS-232：DTR, Data terminal ready RS-422：RX- RS-485：N/A
8	+5V / +12V / RI, Ring indicator **Note：Selected by JP2**
9	GND, ground
10	NC

Pitch:2.54mm [YIMTEX 32510SAG1R]

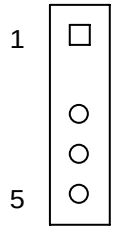
COMx RS-232 Port-x Box Header（x = 3, 4, 5, 6）



Pin	Signal
1	+5V / +12V / DCD, Data carrier detect **Note：Selected by JPx**
2	DSR, Data set ready
3	RXD, Receive data
4	RTS, Request to send
5	TXD, Transmit data
6	CTS, Clear to send
7	DTR, Data terminal ready
8	+5V / +12V / RI, Ring indicator **Note：Selected by JPx**
9	GND, ground
10	NC

Pitch:2.54mm [YIMTEX 32510SAG1R]

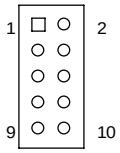
CN1 IrDA Pin Header



Pin	Signal Name
1	+5V
2	NC
3	IRRX
4	GND
5	IRTX

Pitch:2.54mm [YIMTEX 3322*05SAGR]

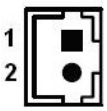
CN2 Digital Input / Digital Output Pin Header



Pin	Signal	Pin	Signal
1	DO0	2	DI0
3	DO1	4	DI1
5	DO2	6	DI2
7	DO3	8	DI3
9	+5V	10	GND

Pitch:2.54mm [YIMTEX 3321*05SAGR(6T)-02]

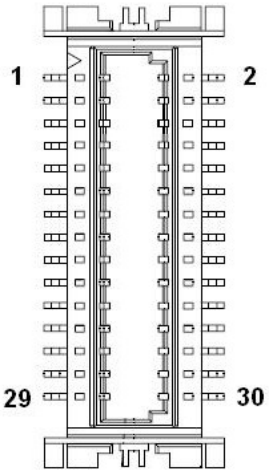
CN3 SM Bus Wafer



Pin	Status
1	SMDAT
2	SMCLK

Pitch:2.0mm [YIMTEX 503PW1*02STR]

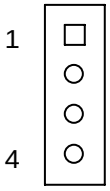
CN4 Modem Card B2B Connector



Pin	Signal	Pin	Signal
1	NC	2	NC
3	GND	4	NC
5	NC	6	NC
7	NC	8	GND
9	NC	10	+5V
11	NC	12	NC
13	NC	14	NC
15	GND	16	NC
17	+3.3VSB	18	NC
19	GND	20	GND
21	+3.3V	22	SYNC
23	SDATA_OUT	24	SDATA_INB
25	RESET#	26	SDATA_INA
27	GND	28	GND
29	MSTRCLK	30	BITCLK

Pitch:0.8mm [宏致 88018-30041]

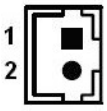
CN5 S/PDIF Pin Header



Pin	Signal Name
1	S/PDIF In
2	GND
3	S/PDIF Out
4	GND

Pitch:2.54mm [YIMTEX 3321*04SAGR(6T)]

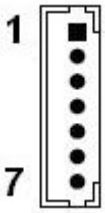
CN6 Left Audio AMP Output Wafer



Pin	Signal Name
1	Speaker+
2	Speaker-

Pitch:2.5mm [YIMTEX 510XW1*02STR]

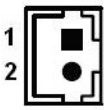
CN7 LVDS Backlight Inverter Wafer



Pin	Signal Name
1	+12V
2	+12V
3	+5V
4	GND
5	GND
6	Black Light Enable
7	Back Light Control

Pitch:2.0mm [YIMTEX 503PW1*07STR]

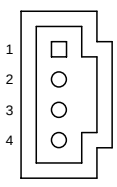
CN8 Right Audio AMP Output Wafer



Pin	Signal Name
1	Speaker+
2	Speaker-

Pitch:2.5mm [YIMTEX 510XW1*02STR]

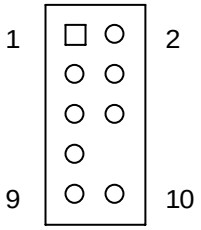
CN10 CD-In Connector



Pin	Signal Name
1	CD-IN-R
2	GND
3	GND
4	CD-IN-L

Pitch:2.5mm [YIMTEX 522CW4SGR]

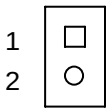
CN12 Front Panel Audio Pin Header



Pin	Signal	Pin	Signal
1	MIC_L	2	Audio GND
3	MIC_R	4	HP_SENSE
5	Line-Out_R	6	MIC_JD
7	Audio GND	8	Key
9	Line-Out_L	10	Line-Out_JD

Pitch:2.54mm [YIMTEX 3322*05SAGR-08]

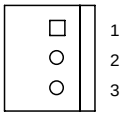
CN13 Audio AMP Volume Control Pin Header



Pin	Status
1	Adjustable Resistor (10KR) +
2	Adjustable Resistor (10KR) -

Pitch:2.54mm [YIMTEX 3321*02RAGR (6T)]

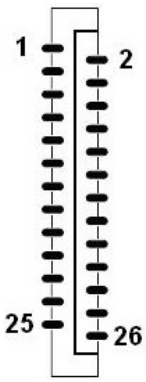
FAN1, FAN2, FAN3 FAN Connector



Pin	Signal
1	RPM
2	+12V
3	GND

Pitch:2.54mm [YIMTEX 521AW1*03STR]

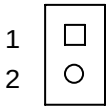
FDD1 Slim Type FDD Connector



Pin	Signal	Pin	Signal
1	+5V	2	#INDEX
3	+5V	4	#DRIVE SELECT A(#DSA)
5	+5V	6	#DISK CHANGE(#DSKCHG)
7	N.C	8	N.C
9	N.C	10	#MOTOR A On(#MOA)
11	N.C	12	DIRECTION SELECT(#DIR)
13	#DRIVE DENSITY SEL(#DS0)	14	#STEP
15	GND	16	#WRITE DATA(#WD)
17	GND	18	#WRITE GATE(#WE)
19	GND	20	#TRACK0
21	GND	22	#WRITE PROTECT(#WP)
23	GND	24	#READ DATA(#RDATA)
25	GND	26	#SIDE ONE SELECT(#HEAD)

Pitch 1.0mm [Wise Power BL106T-26S-TUND]

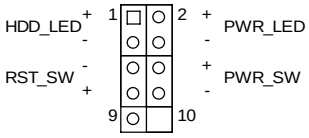
FP1 Power LED Pin Header



Pin	Status
1	Power LED +
2	Power LED -

Pitch:2.54mm [YIMTEX 3321*02RAGR (6T)]

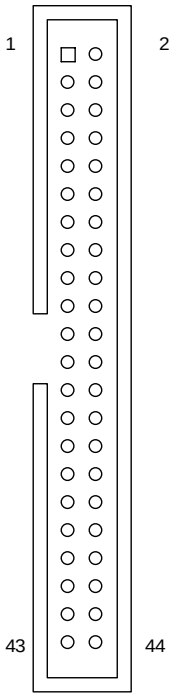
FP2 Front Panel Pin Header



Pin	Signal	Pin	Signal
1	HDD LED +	2	Power LED +
3	HDD LED -	4	Power LED -
5	Reset Swatch -	6	Power Switch +
7	Reset Swatch +	8	Power Switch -
9	NC	10	Key

Pitch:2.54mm [YIMTEX 3322*05SAGR-10(6T)]

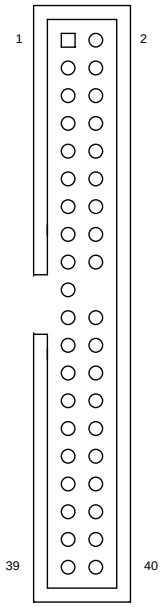
IDE1 Primary 44-pin IDE Box Header



Signal Name	Pin	Pin	Signal Name
Reset IDE	1	2	GND
IDE Data 7	3	4	IDE Data 8
IDE Data 6	5	6	IDE Data 9
IDE Data 5	7	8	IDE Data 10
IDE Data 4	9	10	IDE Data 11
IDE Data 3	11	12	IDE Data 12
IDE Data 2	13	14	IDE Data 13
IDE Data 1	15	16	IDE Data 14
IDE Data 0	17	18	IDE Data 15
Ground	19	20	NC
DREQ0	21	22	GND
IDEIOW#	23	24	GND
IDEIOR#	25	26	GND
IDEIORDY	27	28	CBSEL
DACK0#	29	30	GND
IDEIRQ14	31	32	NC
IDE Address 1	33	34	PDIAG#
IDE Address 0	35	36	IDE Address 2
IDE Chip select 1#	37	38	IDE Chip select 3#
IDE activity	39	40	GND
+5V	41	42	+5V
GND	43	44	NC

Pitch:2.0mm [YIMTEX 324A441SAGSR]

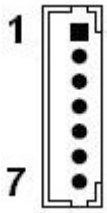
IDE2 Secondary 40-pin IDE Box Header



Signal Name	Pin	Pin	Signal Name
Reset IDE	1	2	GND
IDE Data 7	3	4	IDE Data 8
IDE Data 6	5	6	IDE Data 9
IDE Data 5	7	8	IDE Data 10
IDE Data 4	9	10	IDE Data 11
IDE Data 3	11	12	IDE Data 12
IDE Data 2	13	14	IDE Data 13
IDE Data 1	15	16	IDE Data 14
IDE Data 0	17	18	IDE Data 15
Ground	19	20	KEY
DREQ0	21	22	GND
IDEIOW#	23	24	GND
IDEIOR#	25	26	GND
IDEIORDY	27	28	CBSEL
DACK0#	29	30	GND
IDEIRQ14	31	32	NC
IDE Address 1	33	34	PDIAG#
IDE Address 0	35	36	IDE Address 2
IDE Chip select 1#	37	38	IDE Chip select 3#
IDE activity	39	40	GND

Pitch:2.54mm [YIMTEX 32540SAG3R-20]

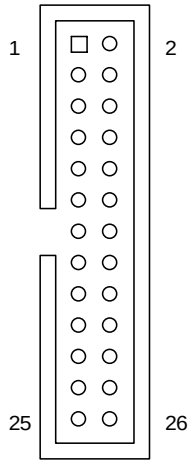
KB1 Internal PS/2 Keyboard Wafer



Pin	Signal Name
1	+12V
2	+5V
3	KBCLK_SIO
4	KBDAT_SIO
5	KBCLK_PS2
6	KBDAT_PS2
7	GND

Pitch:2.5mm [YIMTEX 510XW1*07STR]

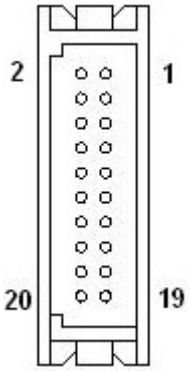
LPT1 Parallel Port Box Header



Pin	Signal	Pin	Signal
1	Strob#, Line printer strobe	2	AutoFeed
3	PD0, parallel data 0	4	Error / +5V **Note：Selected by JP7**
5	PD1, parallel data 1	6	Initialize / +5V **Note：Selected by JP7**
7	PD2, parallel data 2	8	Select In / +5V **Note：Selected by JP7**
9	PD3, parallel data 3	10	GND
11	PD4, parallel data 4	12	GND
13	PD5, parallel data 5	14	GND
15	PD6, parallel data 6	16	GND
17	PD7, parallel data 7	18	GND
19	ACK, acknowledge	20	GND
21	Busy	22	GND
23	Paper empty	24	GND
25	Select	26	NC

Pitch:2.54mm [YIMTEX 32526SAG1R(6T)]

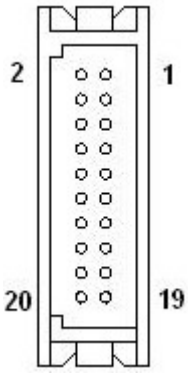
LVDS1 Channel 1 LVDS Connector



Signal Name	Pin	Pin	Signal Name
+3.3V / +5V **Note：Selected by JP10**	2	1	+3.3V / +5V **Note：Selected by JP10**
+3.3V / +5V **Note：Selected by JP10**	4	3	+3.3V / +5V **Note：Selected by JP10**
LVDS_TX0-	6	5	LVDS_TX3-
LVDS_TX0+	8	7	LVDS_TX3+
GND	10	9	GND
LVDS_TX1-	12	11	LVDS_CLK-
LVDS_TX1+	14	13	LVDS_CLK+
GND	16	15	GND
LVDS_TX2-	18	17	GND
LVDS_TX2+	20	19	GND

Pitch:1.25mm [頻銳 712-76-20GWR2]

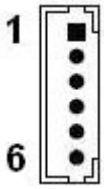
LVDS2 Channel 2 LVDS Connector



Signal Name	Pin	Pin	Signal Name
+3.3V / +5V **Note：Selected by JP10**	2	1	+3.3V / +5V **Note：Selected by JP10**
+3.3V / +5V **Note：Selected by JP10**	4	3	+3.3V / +5V **Note：Selected by JP10**
LVDS_TX0-	6	5	LVDS_TX3-
LVDS_TX0+	8	7	LVDS_TX3+
GND	10	9	GND
LVDS_TX1-	12	11	LVDS_CLK-
LVDS_TX1+	14	13	LVDS_CLK+
GND	16	15	GND
LVDS_TX2-	18	17	GND
LVDS_TX2+	20	19	GND

Pitch:1.25mm [頻銳 712-76-20GWR2]

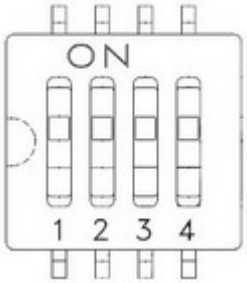
MS1 Internal PS/2 Mouse Wafer



Pin	Signal Name
1	+5V
2	MSCLK_SIO
3	MSDAT_SIO
4	MSCLK_PS2
5	MSDAT_PS2
6	GND

Pitch:2.5mm [YIMTEX 510XW1*06STR]

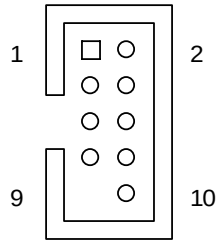
SW1 External PS/2 KB/MS Switch



Switch	Status	Function
1	ON	KBCLK_SIO and KBCLK_PS2 are shorted.
	OFF	KBCLK_SIO and KBCLK_PS2 are open.
2	ON	KBDAT_SIO and KBDAT_PS2 are shorted.
	OFF	KBDAT_SIO and KBDAT_PS2 are open.
3	ON	MSCLK_SIO and MSCLK_PS2 are shorted.
	OFF	MSCLK_SIO and MSCLK_PS2 are open.
4	ON	MSDAT_SIO and MSDAT_PS2 are shorted.
	OFF	MSDAT_SIO and MSDAT_PS2 are open.

[鴻琪 HDS404-E]

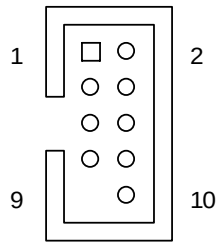
USB1 USB Port-2&3 Box Header



Pin	Signal Name	Pin	Signal Name
1	+5V	2	+5V
3	USB2-	4	USB3-
5	USB2+	6	USB3+
7	GND	8	GND
9	Key	10	GND

Pitch:2.54mm [YIMTEX 32510SAG1R(6T)-09]

USB2 USB Port-4&5 Box Header



Pin	Signal Name	Pin	Signal Name
1	+5V	2	+5V
3	USB4-	4	USB5-
5	USB4+	6	USB5+
7	GND	8	GND
9	Key	10	GND

Pitch:2.54mm [YIMTEX 32510SAG1R(6T)-09]

CHAPTER 6 Hardware Specification

Standard Configurations:

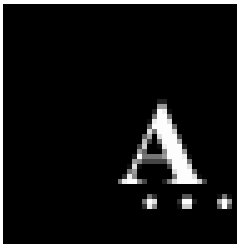
1. Processor CPU Speed: Intel Celeron M processors with 1.5GHz .
2. SDRAM Memory : 256M
3. Flash Memory : 64M
4. I/O:
5. Serial COM : 2 with power out
6. USB : 2 ports
7. LAN: 1 Ethernet
8. Wi-Fi: 802.11b/g
9. Cash Drawer: 2 port
10. MSR : 1 tracks

Integrated Options:

- **Smartcard reader**
- **Magnetic 3 tracks Head**
- **Wi-Fi**
- **Slim CDROM**

Physical:

- Demensions:27.5(W)x29.5(L)x13.5(H)
- Weight:6 Kg

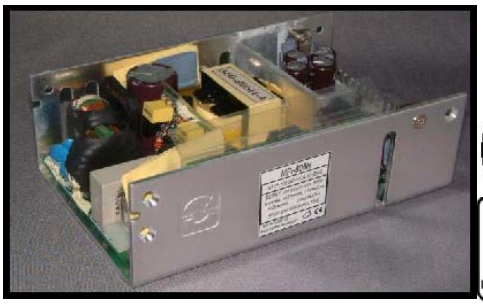


Appendix I: LAN Controller:

REALTEK RTL8139/810x

- Integrated Fast Ethernet MAC, Physical chip and transceiver in one chip.
- 10 Mb/s and 100 Mb/s operation
- PCI local bus single-chip Fast Ethernet controller
  - ✧ Compliant to PCI Revision 2.2
  - ✧ Support PCI clock 16.75MHz-40MHz
  - ✧ Provides PCI bus master data transfers and PCI memory space or I/O space mapped data transfers of RTL8100B's operational registers
  - ✧ Supports PCI VPD (Vital Product Data)
  - ✧ Supports ACPI, PCI power management
- Compliant to PC99/PC2001 standard
- Supports Wake-On-LAN function and remote wake-up
- 0.25um, 2.5/3.3V power, single chip, 100-pin PQFP.

Appendix II: *Power Supplely*



FEATURES

80W with 8.6CFM forced air- cooling, 60W convection cooling
Compact size with ATX output
PG/PF Signal
+5V Stand by & Remote On/Off
MTBF>130,000 hr. MIL-217F.

1. Description

MPI-806H is a compact size, ATX output power supply for industrial and embedded system application. The device utilizes a thermally efficient U channel chassis design. Designed to be convection cooling but however provided with optional cover and fan for customers' reference.

Output Voltage	Mini. Output Current	Rated Output Current	Max output Current (Note 1)	Line Regulation	Load Regulation	Ripple & Noise p-p (Note 2)	Initial Setting Accuracy (Note 3)
+5V	1A	5A	8A	1%	2%	50mV	5.08V to 5.13V
+12V	0A	1.5A	3A	1%	4%	120mV	11.4V to 12.6V
-12V	0A	0.5A		1%	5%	120mV	-11.4V to -12.6V
+3.3V	0A	4A	6A	1%	4%	50mV	3.10V to 3.50V
+5Vsb	0A	0.75A		1%	4%	120mV	4.80V to 5.20V

Total Output Power: 80W at 50°C environment temperature (Note 4).

Note: 1) The maximum total combined output power on the +3.3V and +5V rails is 40W.
2) Measured by a 20MHz bandwidth limited oscilloscope and the each output is connected with a 10µF Electrolytic Capacitor and a 0.1µF Ceramic Capacitor.
3) The +5V output is set between 5.08V to 5.13V by variable resistor and all output at 60% rated load and the other Outputs are checked to be within the accuracy range. .
4) Total maximum load cannot exceed 80W with 8.6 CFM forced air-cooling and 60W convection cooling.

2. Input Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Input Voltage-AC	Continuous input range.	90	115/230	264	VAC
Input Frequency	AC input.	47		63	Hz
Hold Up Time	Nominal AC Input Voltage (230VAC), rated load.	20			ms
Input Current	Nominal AC Input Voltage (115VAC/230VAC), rated load.			2/1	A
Inrush Current	Nominal AC Input Voltage (115VAC/230VAC), one cycle at 25°C.			30/60	A
Input Protect	Non-user serviceable internally located AC input line fuse.				

3. Output Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Efficiency	Rated load, 115VAC. Varies with distribution of loads among output.		70		%
Minimum load		See Chart of Description			
Ripple & Noise	Rated load, 20MHz bandwidth	See Chart of Description			
Output Power	Continuous output power.	See Chart of Description			
Line Regulation	Less than ±1% at rated load with ±10% changing in input voltage.	See Chart of Description			
Load Regulation	Measured from 60% to 100% rated load and from 60% to 20% rated load (60% ±40% rated load) for each output, and others Voltage setting at 60%.	See Chart of Description			
Turn-on Delay	Time required for initial output voltage stabilization	0.3		4	Sec

4. Interface Signals and Internal Protection

Parameter	Conditions/Description
Power On/Off	The power supply will be turned on when the power On/Off pin is connected to secondary GND
Power Good Signal	When power is turned on, the power good signal will go high 100ms to 500ms after all output DC Voltages are within regulation limits.
Power Fail Signal	The power fail signal will go low at least 1 mS before any of the output voltages fall below the regulation Limits.
Over Load Protection	Fully protected against output overload and short circuit. Automatic recovery upon of overload condition.

5. Safety Approvals, EMI and EMS Specification

Parameter	Conditions/Description	Min.	Nom.	Max.	Units
Safety Approvals	UL, UL 60950, 3rd edition CB, IEC 60950-1 TUV, EN 60950-1: 2001		Approved		
Hi-Pot	Input to output	4242			VDC
Hold Up Time	Nominal AC Input Voltage (230VAC), rated load.	20			mS

Radiation	EN 55022 / CISPR 22 & FCC Part 15	B	
Conduction	EN 55022 / CISPR 22 & FCC Part 15	B	Class
EMS	IEC 61000-4-2, 8KV air discharge and 6KV contact discharge	3	
	IEC 61000-4-3, 3V/M	2	
	IEC 61000-4-4, 2KV line & PE	3	
	IEC 61000-4-5, 2KV	3	Level
	IEC 61000-4-6, 10V	3	
	IEC 61000-4-8, 10A/M	3	
	IEC 61000-4-11		

Version 1.1