

Evolution System

*User's Guide
(Manual)*

User Manual Reading Guide

Dear Users :

Thank you for choosing our products from among the variety of products available on the market. To start using this product right away, please read this manual carefully.

Evosys is a highly efficient and convenient solution for managing computers installed in school computer classrooms. For your convenience, we present the following scenarios and corresponding solutions in order to help you to complete system migration and deployment. Again, thank you for using our products.

“Scenario 1” If you are using a new computer on which you will use Evosys, and are ready to install the OS, refer to Sector 2 “Quick Installation Guide”.

“Scenario 2” If you have installed an OS in your computer before using Evosys, and want to directly install Evosys, refer to Sector 4 “Installing Evosys on Existing OS”.

“Scenario 3” If you want to install multiple operating systems on one computer, refer to Sector 5 “Advanced User Guide”.

“Scenario 4” If you want to install, uninstall, or modify system settings after installing Evosys, refer to Sector 3 “Incremental copy - Installing, Deleting Software, Modifying System Settings”.

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1. Product Introduction

1.1 Product Description

1. Evolution System is a new generation computer management product for computer system security protection and deployment with flexibility.
2. Evolution System uses a hardware-controlled chip architecture to prevent damage from the chips on the recovery card (ROM).
3. The hard disk drive is directly accessed and managed, and cables are directly connected to the cards to provide the mechanism for controlling the hard disk drive read write I/O operation, protecting data stored on the hard disk drive, and eliminating virus threat (e.g. AIBO).

1.2 Functions Introduction

1. Setting level driver program embedded in the protection chip: no installation of third party software required.
2. OS supported (Windows system with instant recovery ability, Linux system with backup recovery ability).
3. High-capacity hard disk drive supported (max. 2TB).
4. Multiple OS(s) installation allowed: each of them can be independently operated.
5. CMOS protection and transmission function are provided (motherboard support needed).
6. Multiple hard disk partitions protected.
7. Network install / NetCopy / Incremental copy over Network.
8. Continuous transmission from break point supported.
9. Incremental copy function supported on any transmitting end.
10. Incremental copy operation supported in any mode (including administrator mode, protection).
11. Local hard disk drive copy supported.

12. Ability to modify partition attributes supported.
13. Partition copy supported for copying between different partitions in local disk drive.
14. Ability to automatically clean NTFS system files supported.
15. Remote wake up, remote reboot/shutdown, remote lock supported.
16. Time synchronization, automatic IP/computer name allocation supported.
17. IPv6 supported that can satisfy the requirement of network upgrade.
18. I/O control supported, and USB disk and CD-ROM driver controlled from low level.
19. CMOS automatic recovery supported.
20. Ability to partition hard disk drive supported (without the support of the third party software)
21. Static + Dynamic dual mode buffering mechanism adopted.
22. Architecture of hardware chip with anti-hacking mechanism.

1.3 Minimum Hardware Requirement

CPU:	Intel Pentium III
RAM:	32MB
Hard Disk Drive:	SATA interface 8.4GB or above

1.4 Operating Systems Supported

1. Instant recovery Type
DOS
Windows 2000 Professional / Server
Windows 2003 Server / Windows 2008Server
Windows XP Home / Professional 32/64Bit
Windows Vista / Windows 7 32/64Bit
2. Backup Recovery Type
All OS(s)



1. If more than two OS(s) are installed, DOS system can only be installed at first 2GB of storage spaces in hard disk drive. (FAT16)
2. In case of supporting DOS protection (instant recovery), OS name should be changed to Dos. (upper or lower case acceptable)
3. Evosys supports at most 16 OS systems, and a maximum of nine data partitions available for each OS. Forty partitions allowed altogether.
4. Linux series, acceptable system file format EXT2 or EXT3, and the Kernel version 2.6.26 or higher
5. When installing Windows 2000 OS, all related system partitions (including data partitions) should be assigned to the first 137GB of the hard disk drive, otherwise the system will generate an error due to properties of the Windows 2000 system.

1.5 File System Formats Supported

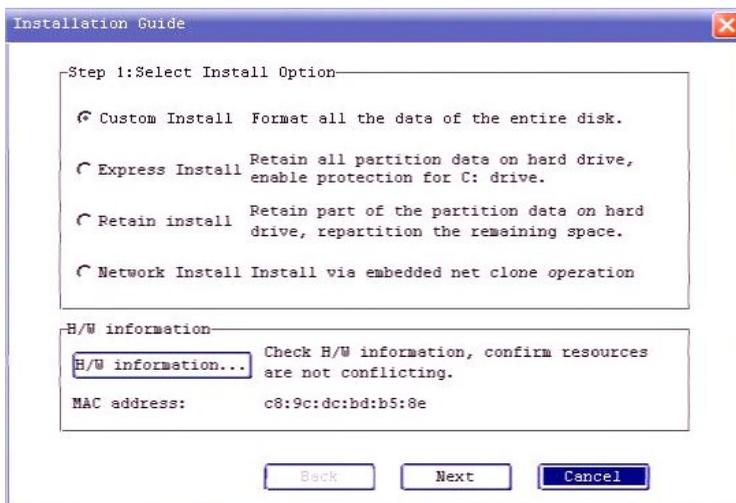
FAT16, FAT32, NTFS, EXT2 / EXT3, UFS

2. Quick Installation Guide

2.1 Installing Evosys

- Shut down computer, turn off power source, and remove computer covers.
- Insert Evosys card into PCI-E interface slot (any of X1-X16) on the motherboard, and connect SATA cable for hard disk drive to a SATA slot on the Evosys card. For cards with Lite and Lan version, connect SATA cable for the hard disk drive to the first SATA slot on the motherboard.
- Replace the cover, setup the power source, and turn the computer power source on.
- After computer startup, Evosys installation wizard automatically opens, as shown in figure 2-1.

※ If the Evosys installation wizard does not appear, refer to Appendix One “Q&A 1”.

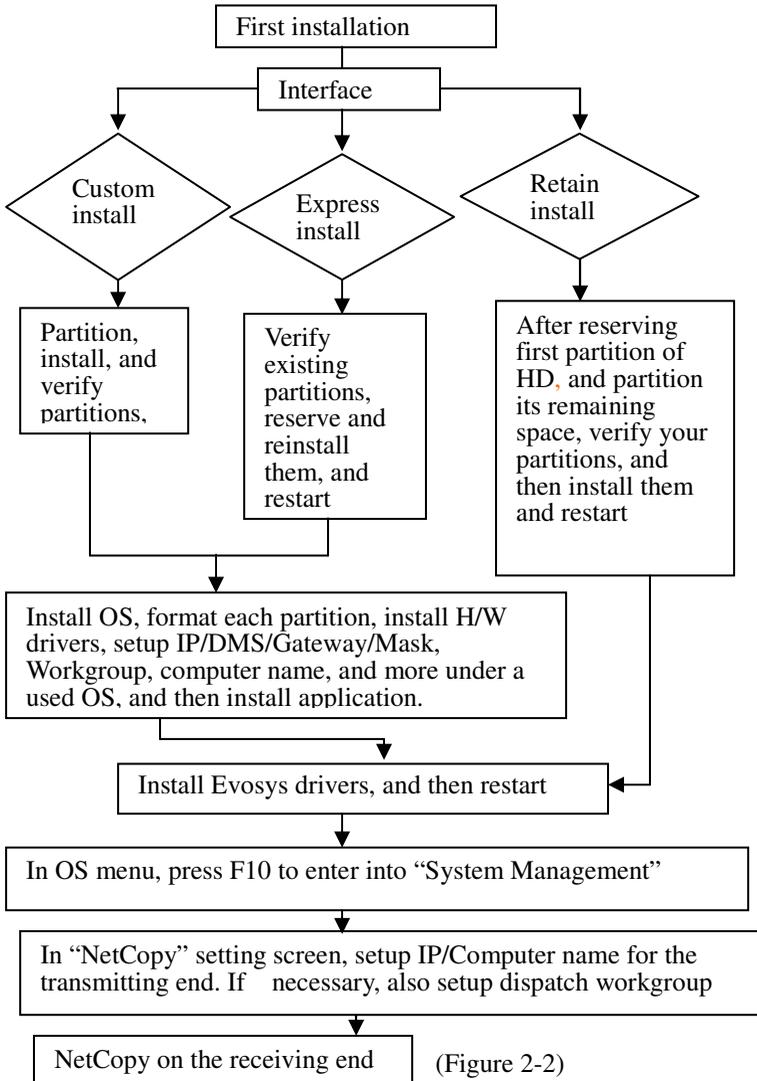


(Figure 2-1)

2.2 Installation Flow Chart

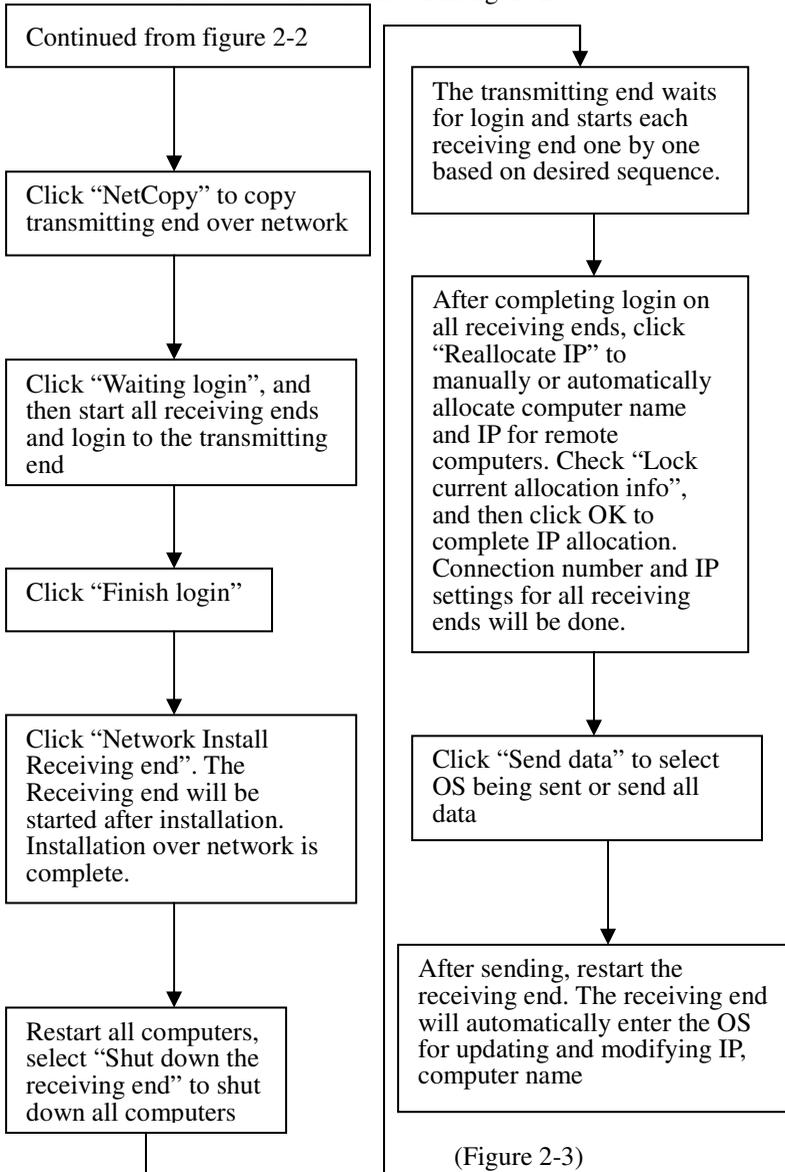
2.2.1 Flow Chart of Installation on Transmitting End

This flow chart is shown in figure 2-2



2.2.2 Flow Chart of NetCopy on the Receiving End

This flow chart is shown in figure 2-3.

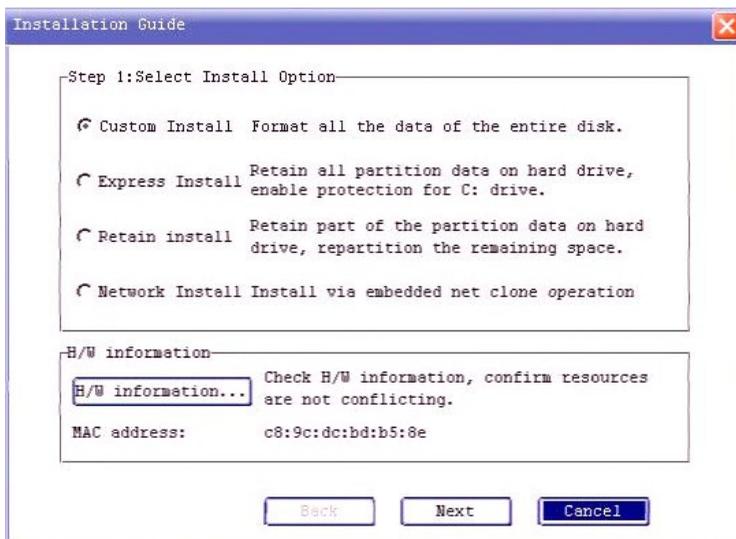


(Figure 2-3)

2.3 Installing Your Transmitting End (custom install used as an example)

2.3.1 Selecting Installation Option – Custom Install

After installing the Evosys card, turn on your computer and it will automatically enter into “Select Installation Option” (Figure 2-4) dialog box.

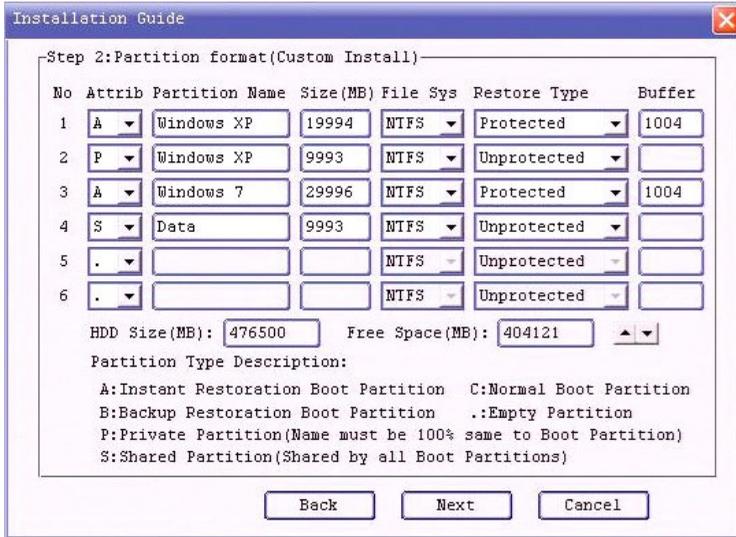


(Figure 2-4)



If you want to preserve your original OS, refer to section 4 “Installing Evosys on the existing”.

Select “Custom Install”, partition your hard disk drive again as shown in figure 2-5.

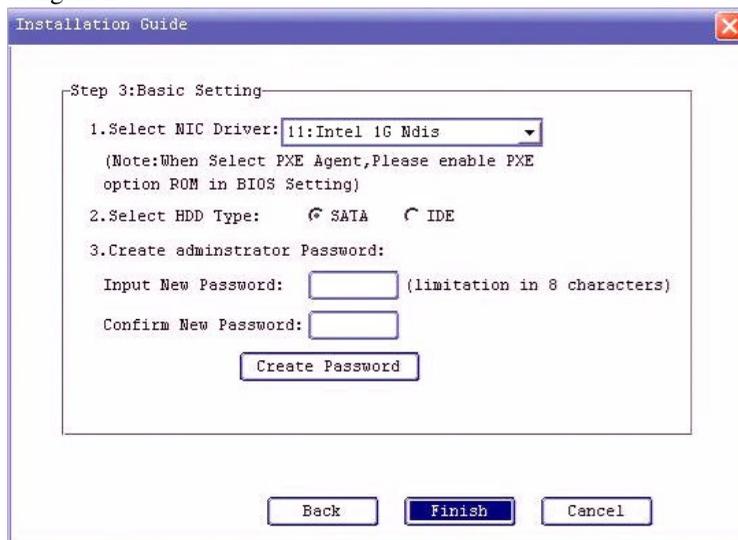


(Figure 2-5)



1. The buffer size of Evosys ranges from 100MB to 10GB for storing protected data.
2. The capacity setting for buffers depends on your daily data volume and recovery mode.
3. In general, we suggest the total capacity for all protected partitions assigned to OS should be between 10%~20%.
4. Suggested that the buffer size for Vista and Win7 OS should be greater than 2G.

After confirming your partition information, click “Next” as shown in figure 2-6.



(Figure 2-6)

- 1、 Select a corresponding network card type and hard disk drive interface type (SATA).



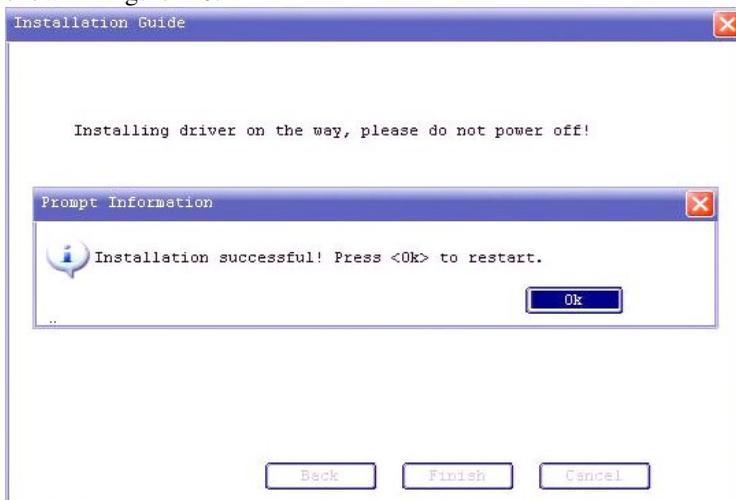
1. Network Card Type: Evosys can automatically detect the network card type, and correct it to the right one if the wrong type is found. If more network cards are used in a computer, a desired one can be also selected here. For more information about network cards, refer to “(Q&A)”.
2. Hard disk drive Interface Type: A type should be selected in accordance with a physical hard disk interface used. Evosys only supports SATA interface type.

-
- 2、 If a password is needed, it can be set up here. In the password box, enter the desired password, and then click “Create a new password” to complete this setting as shown in figure 2-7. Click OK to confirm your setting as shown in figure 2-8.



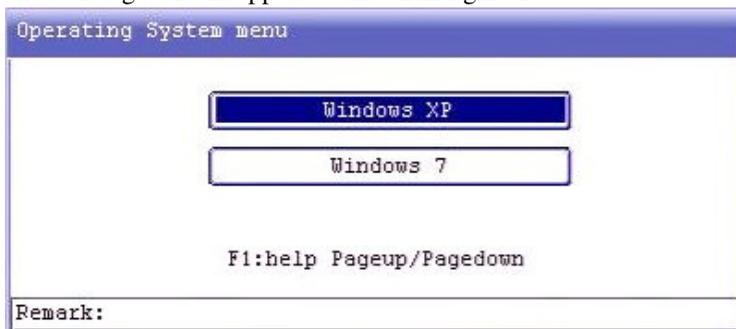
(Figure 2-7)

Network Card Mode: after entering the hard disk drive interface type and password, click “Finish”. A dialog box will appear as shown in figure 2-8.



(Figure 2-8)

After you click OK, your computer will automatically start up, and a dialog box will appear as shown in figure 2-9.



(Figure 2-9)

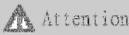
2.3.2 Installing OS and Application Software



Attention

Windows XP will be used here as an example. We describe how to install system and Evosys driver for your installation in all systems.

1. Place the Windows XP installation CD into the CD drive and click “Windows XP” in the OS menu. OS installation will begin. Since this installation step is identical to general installation, detailed description is omitted.
 2. After installing OS and all applications, make sure all disks are partitioned (the partitioned file system is the same as the previously partitioned disk sector).
 3. Setup IP, Mask, Gateway, DNS for your network settings.
-



Evosys has partitioned the disk for your OS. When installing Evosys, you may find some disk space is not partitioned (Figure 2-10).



(Figure 2-10)

This situation is a normal case, please do not change any existing partition on the hard disk drive, just directly select the C disk for installation (1st partition). Please do not delete partitions and then partition them.

2.3.3 Installing the Evosys OS Driver

Place the Evosys software disk into the CD drive, and find the driver (Figure 2-11) in existing directories on the CD (the same driver installation programs used for all Windows systems)(***Note: Before installation, please be sure to install these driver programs with administrator privilege.**)

(Figure 2-11)



EVOSYS_Setup



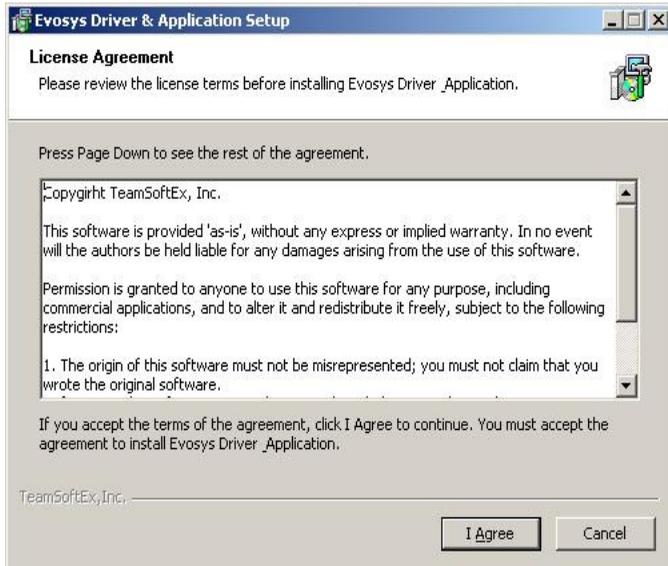
Evosys Manual.pdf
Adobe Acrobat Document
3,263 KB

1. Double click files being installed.
2. Select your preferred language.



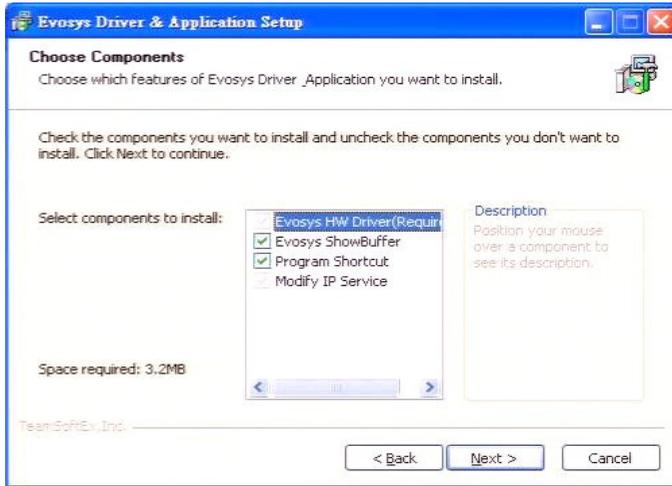
(Figure 2-12)

3. Read the license agreement, and click “I Agree” to continue your installation.



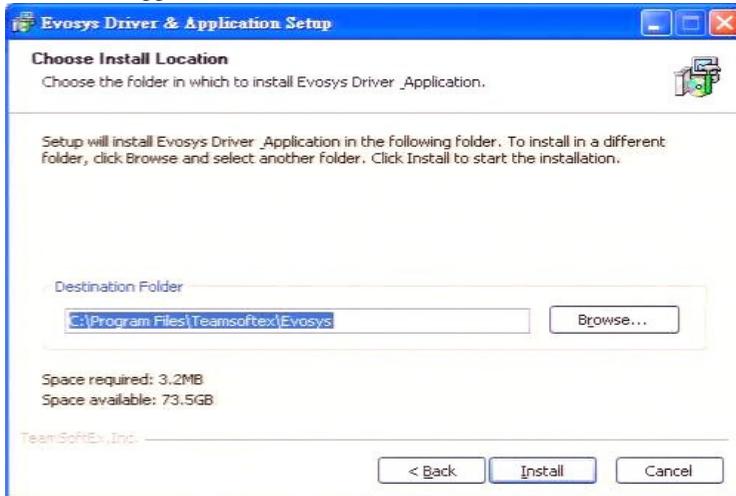
(Figure 2-13)

4. Select components to install (installing all components recommended).



(Figure 2-14)

5. Select your installation directory (default setting suggested).



(Figure 2-15)

6. If Windows logo verification appears, please select “Continue Anyway”.



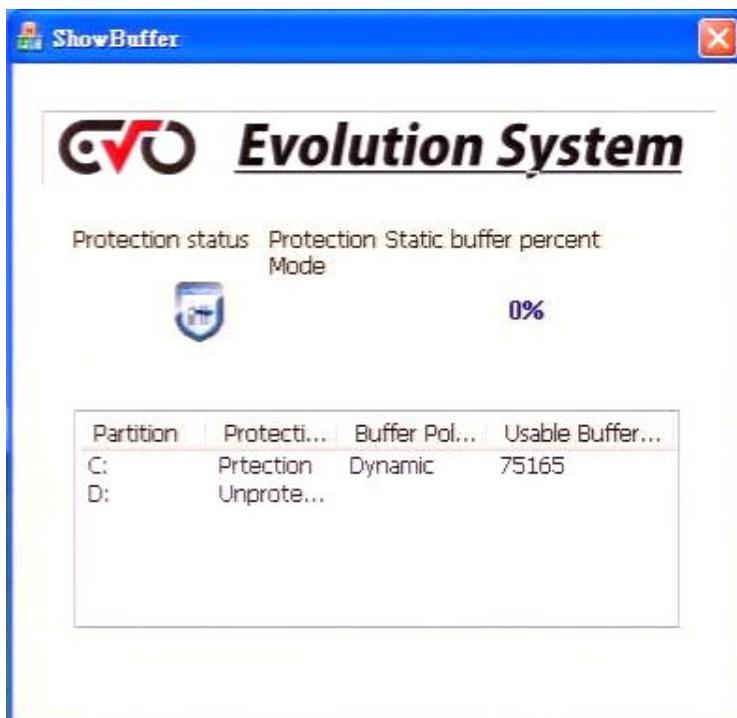
(Figure 2-16)

7. The window below will appear after installation. Select “Reboot now” and then click “Finish”.



(Figure 2-17)

8. Enter into Windows XP, and double click an icon located at the lower-right corner on the system desktop after system rebooting. Your current protection status will pop up as shown in figure 2-18.



(Figure 2-18)



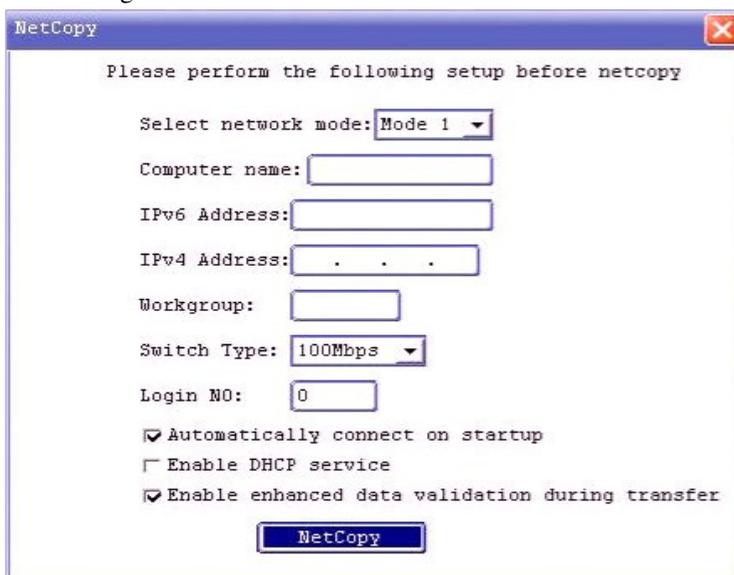
1. Before installing the Evosys sOS driver, please use anti-virus software to check the entire OS in order to make sure it is not a virus-infected one.
2. Use Windows update function in Windows environment to update your OS to the latest version.

9. Complete your installation.

After Evosys installs the Windows system driver, reboot the computer to complete Evosys installation, and the system will enter into protection status.

2.3.4 Setting NetCopy Messages on the Transmitting End

In the Evosys OS selection screen, press F8 to enter your password, and after entering the NetCopy setting interface as shown in figure 2-19, select a “Copy Mode” and set up computer name, local host IP address, workgroup name, and others for your transmitting end.



NetCopy

Please perform the following setup before netcopy

Select network mode: Mode 1

Computer name:

IPv6 Address:

IPv4 Address: . . .

Workgroup:

Switch Type: 100Mbps

Login NO: 0

Automatically connect on startup

Enable DHCP service

Enable enhanced data validation during transfer

NetCopy

(Figure 2-19)

If a static IP is used, an IP information should be set on your transmitting end. Also choose “Automatically connect on startup”. If a workgroup is needed, please enter workgroup name. You can select 100Mbps or 1000Mbps for “Switch Type” according to the switches used in your actual network environment.



1. NetCopy mainly supports three netcopy modes:
 - Mode 1: for regular NetCopy mode
 - Mode 2: for fast NetCopy mode, which is suitable when there are many computers in the environment.
 - Mode 3: for fast NetCopy mode (suitable for 1000Mbps used for switches and network cards in the environment).
 2. When switching different copy modes, the receiving end will automatically start up at the time of automatic login.
-

Receiving end for NetCopy

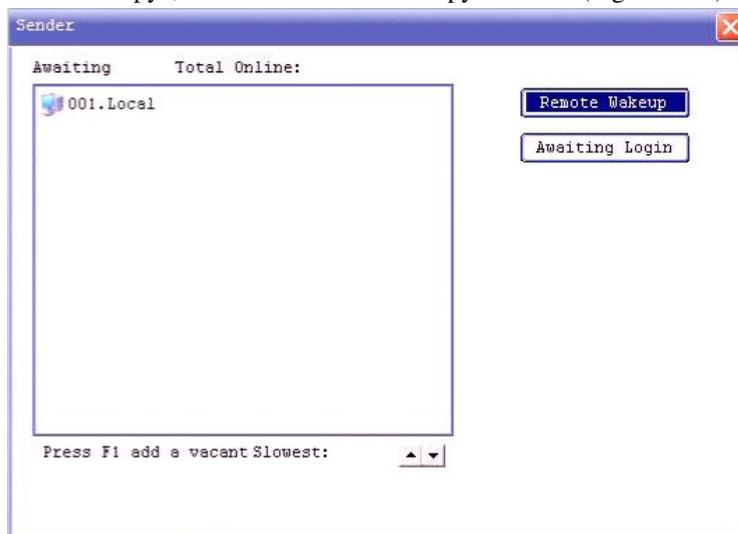
If you have successfully installed Evosys onto your computer, use NetCopy function in Evosys to copy contents from a computer (hereinafter called “transmitting end”) to other computers (hereinafter called “receiving end”) over the network.

2.4 Net Copy on the Receiving End

2.4.1 Setting Level Driver on Receiving End for NetCopy

1、Entering into transmitting end, and awaiting login from the receiving end

In the Evosys network setting interface (Figure 2-19), click “Start to Copy”, and enter into the NetCopy interface (Figure 2-20).

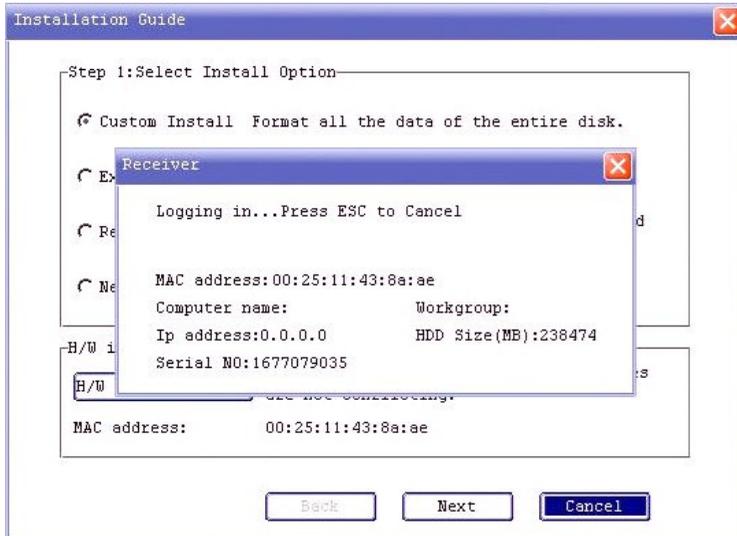


(Figure 2-20)

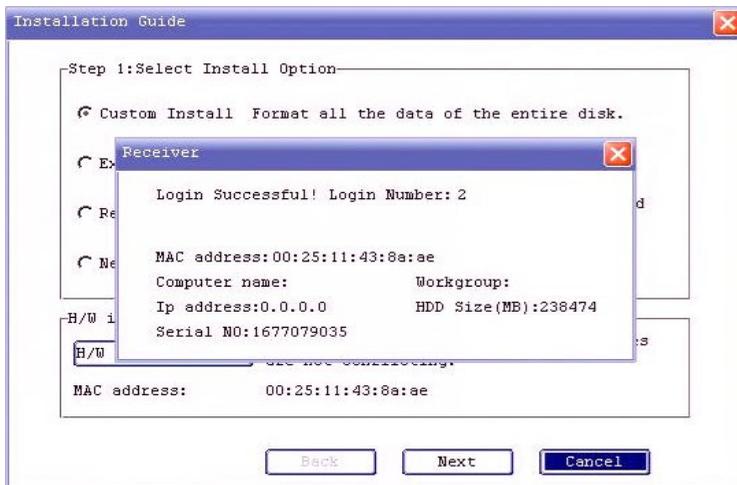
After you click “Awaiting Login”, this transmitting end will wait for the login being taken from the receiving end.

2、 Logging into the Transmitting End from the Receiving End

After the receiving end is started, it will automatically login to the transmitting end as shown in figure 2-21, 2-22.

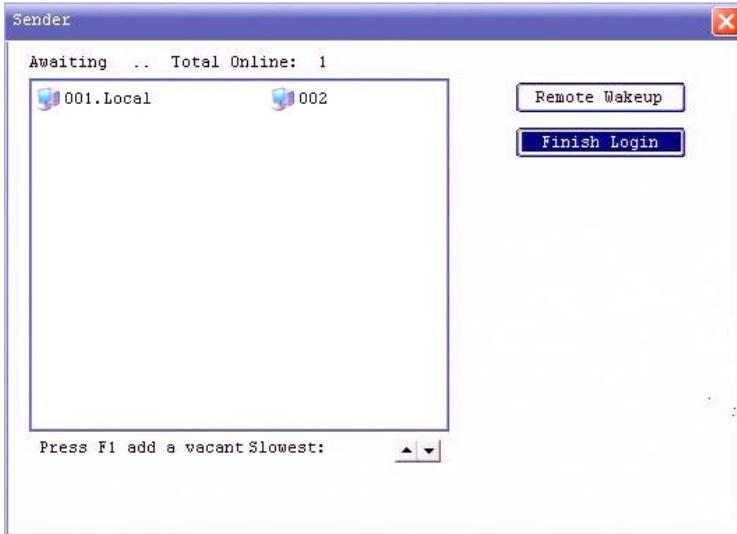


(Figure 2-21)



(Figure 2-22)

After all receiving ends finish the login process, click “Finish Login” in the “NetCopy” interface on the transmitting end (Figure 2-23).



(Figure 2-23)

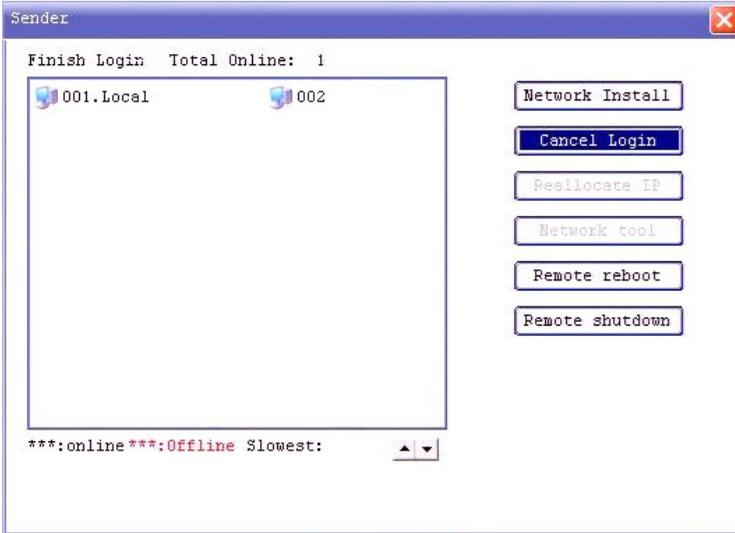


Three situations described below may occur when logging into the transmitting end from the receiving end:

1. Before the setting level driver is installed onto the Evosys, it can automatically respond to a login request from the main control terminal, and automatically login to the transmitting end.
2. If the “Auto connection accomplished after the receiving end startup” function is enabled on a computer installed with Evosys’s setting level driver, the system will automatically login to the transmitting end in the status of the OS menu system after startup.
3. If the “Auto connection accomplished after the receiving end startup” function is not enabled on a computer installed with the Evosys’s setting level driver, a hot key F9 could be used for quick login in the OS menu interface.

3、Performing NetCopy, installing the setting level driver onto the receiving end over a network

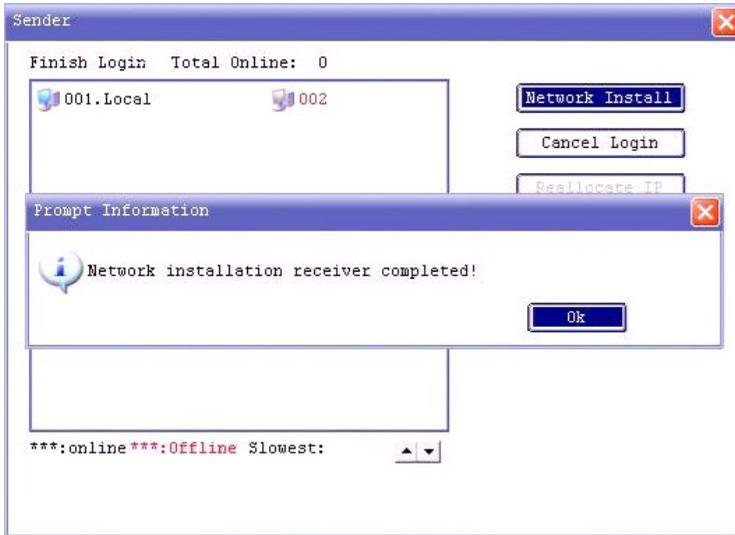
Click “Finish Login”, and you are ready to send data as shown in figure 2-24.



(Figure 2-24)

Only “Network Install”, “Cancel Login”, “Remote reboot”, and “Remote shutdown” functions are shown in the figure above.

Besides the host’s Evosys driver, the driver being installed onto the receiving end needs to be transferred through the host. If a login from the receiving end occurs for the first time, the “Install remote over network” function can only be selected for all terminals as shown in figure 2-24.



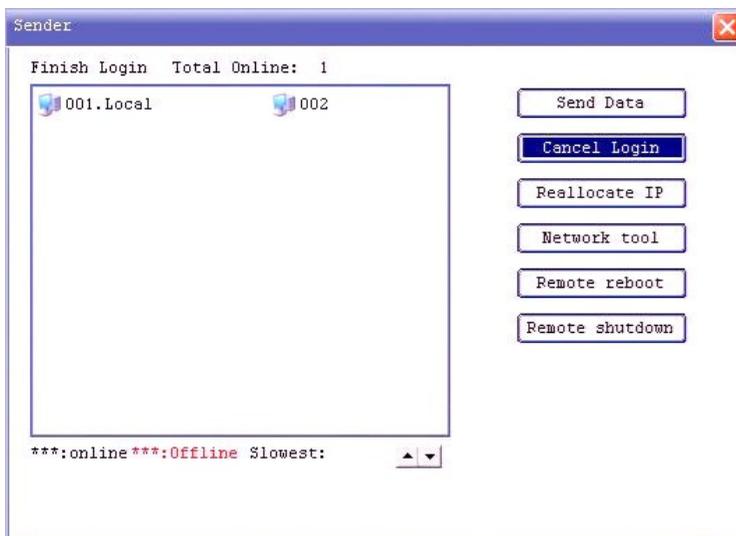
(Figure 2-25)

After completing the remote installation over the network, a prompt will pop up as shown in figure 2-25. The receiving end will automatically reboot, and enter into Evosys's setting level driver interface.

2.4.2 Setting Receiving End (IP / Computer Name)

- 1、After completing the login process for all computers, click "Complete Login", and then select "Shut down from Receiving end". All computers can be shut down (Figure 2-26).
- 2、Logging into transmitting end from receiving end in sequence

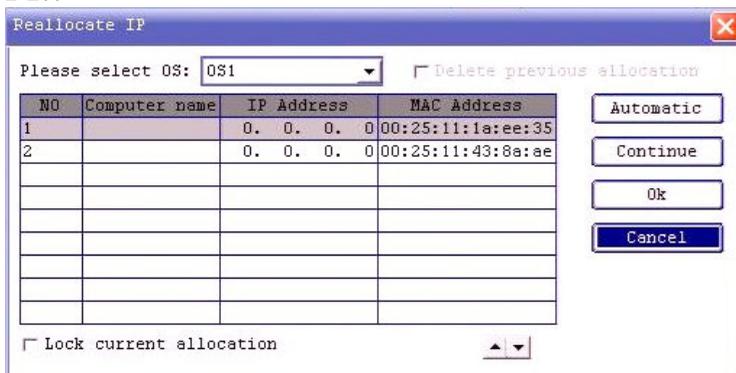
The transmitting end waits for login. The receiving ends will be started one by one according to the stipulated sequence of computer names. All transmitting ends will be logged in sequence. The connection number for each receiving end can then be properly set as shown in figure 2-26.



(Figure 2-26)

3、Reallocating IP

After completing login from all receiving ends, click the “Reallocate IP”, and the “Reallocate IP” interface as shown in figure 2-27.



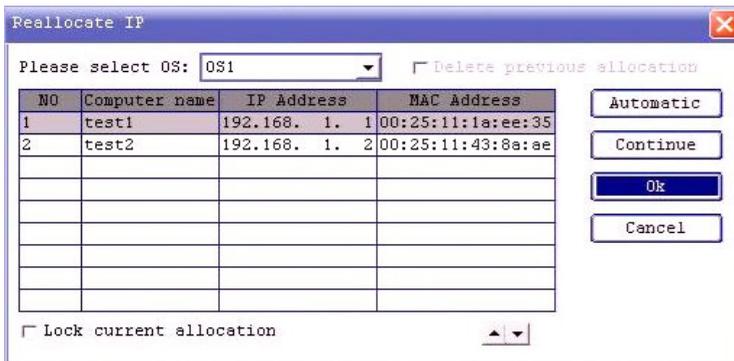
(Figure 2-27)

In this interface, click the left mouse button on the corresponding entry location. The input box shown below will appear. Enter the computer name and IP address, manually allocate the computer name and IP address for each computer, or use the auto allocation function provided by Evosys. After confirming the computer name and IP address entered for test1 computer (Figure 2-28), you can use this auto allocation function to complete all computer allocations.



(Figure 2-28)

After computer name and IP address for a receiving end are manually or automatically allocated, a similar interface will appear as shown in figure 2-29.



(Figure 2-29)

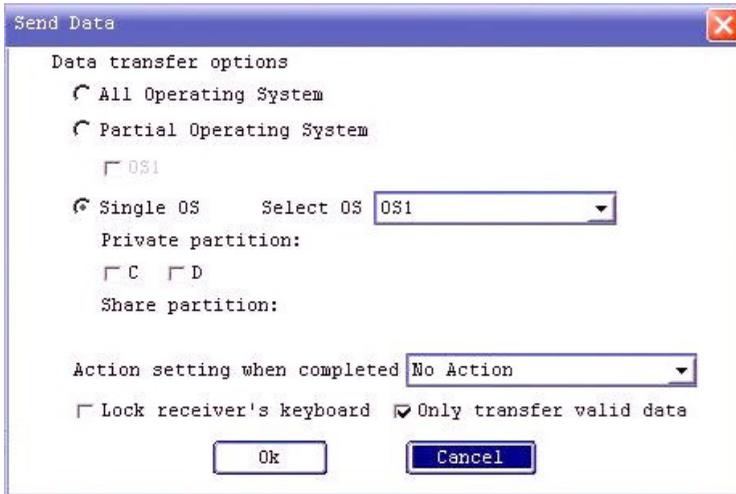
Click “Auto Allocation” to automatically allocate this network segment IP, computer name for all logon receiving ends. If you want to lock the current connection allocation message, check “Lock the current allocation information”, and then click “OK” to complete the IP allocation.



1. If “Lock current allocation” is ticked, you can then logon to the transmitting end from the receiving end with the locked number. No further IP allocation is needed.
 2. The “Automatic” function is based on the computer name and the IP address for a computer associated with connection number 1. If there is no login action on this host, this “Automatic” function will be unavailable for further use and you will have to manually modify a desired computer.
 3. The “Continuous” function is used as an alternative in case the “Automatic” function is unavailable, different segment IP addresses are necessarily allocated in the same environment, or different computer name rules are needed. You now move the mouse to the desired number location needed for an initial value entry. After setting this computer IP and a computer name, just click on “Continuous”, and the rest can be done in the same manner.
 4. The receiving end will automatically modify the IP. After rebooting it will automatically guide the receiving end to complete deployment, and enter the OS to modify local computer information and save the modification without any human intervention.
 5. If you select “All Operating Systems”, and also check the “Delete Previous Allocation Message”, the system will delete an IP, computer name assigned to a single system, and thus all systems will adopt the same IP and computer name.
-

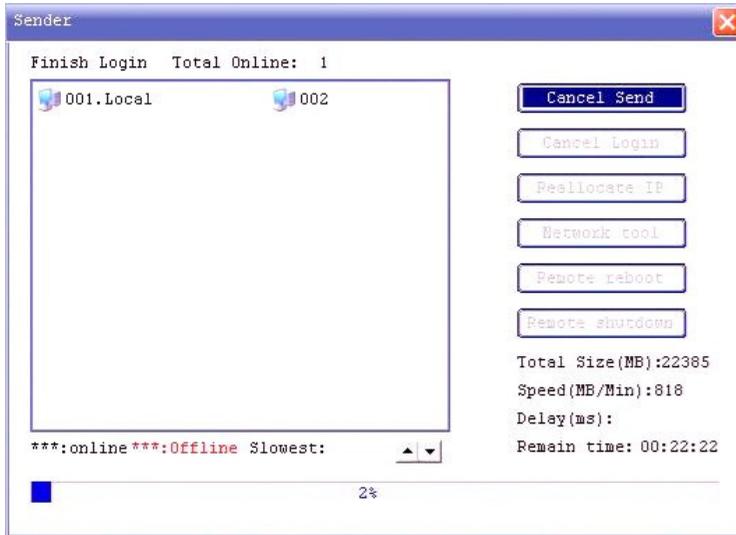
2.4.3 Sending Operating System Data

After clicking “Send Data”, you will enter into the “Send Data” interface. You now can select a share data partition disk for sending all operating system, partial operating system or single OS as shown in figure 2-30 °



(Figure 2-30)

After selecting the desired data being sent, click “OK” to start sending data (Figure 2-31).



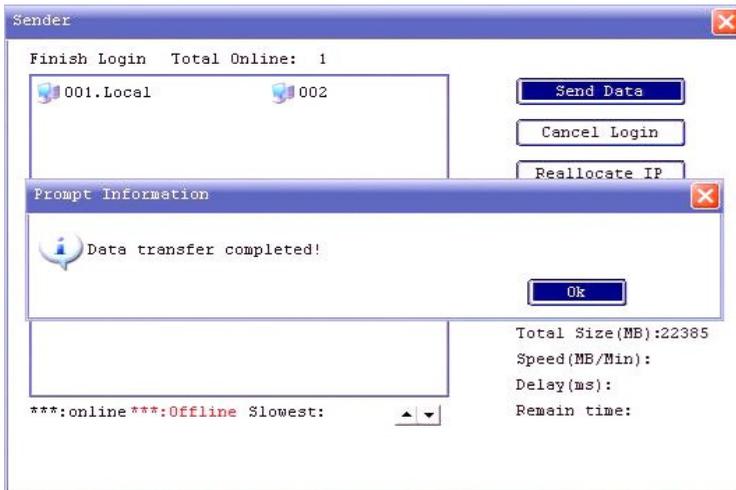
(Figure 2-31)

During data transmission, some messages, such as the number of current connected computers, data volume, transmission speed, delay time, remaining time, Slowest-speed computer, or disconnected computers, will be shown on the main screen.



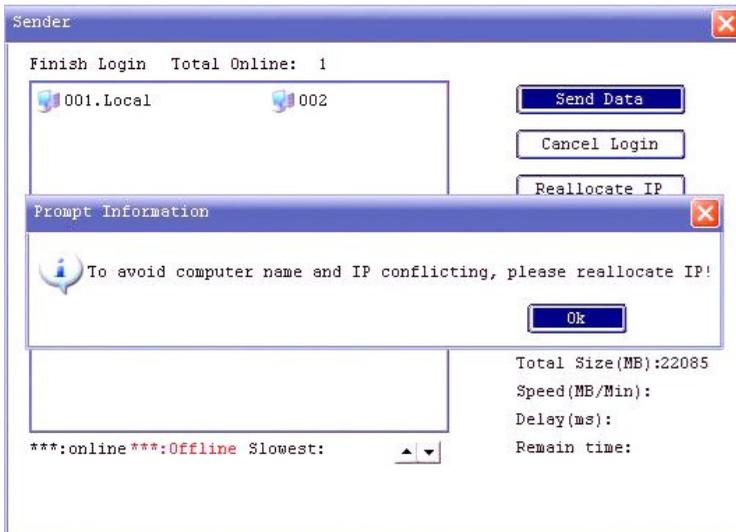
Evosys provides a fault location function. If the network speed is not normal, we may use the “Slowest-speed computer” display function to determine the possible faulty computer location. The network delay and fault problems can be solved by testing the network cables or shutting down the faulty computers

The following message will appear after completing data transmission (Figure 2-32).



(Figure 2-32)

The following prompt will appear after confirmation (Figure 2-33).



(Figure 2-33)

After completing the NetCopy, the IP address for all receiving ends is the same as the one used by the host, and thus the IP address needs to be reallocated.

For more information about the allocation message, refer to section 2.4.2. If any IP address has been previously allocated, you don't need to change it. Simply enter the IP allocation interface, and click "OK". If you need to reallocate it, you can directly change the computer name and IP address for test1 computer, and then click "Auto Allocation".

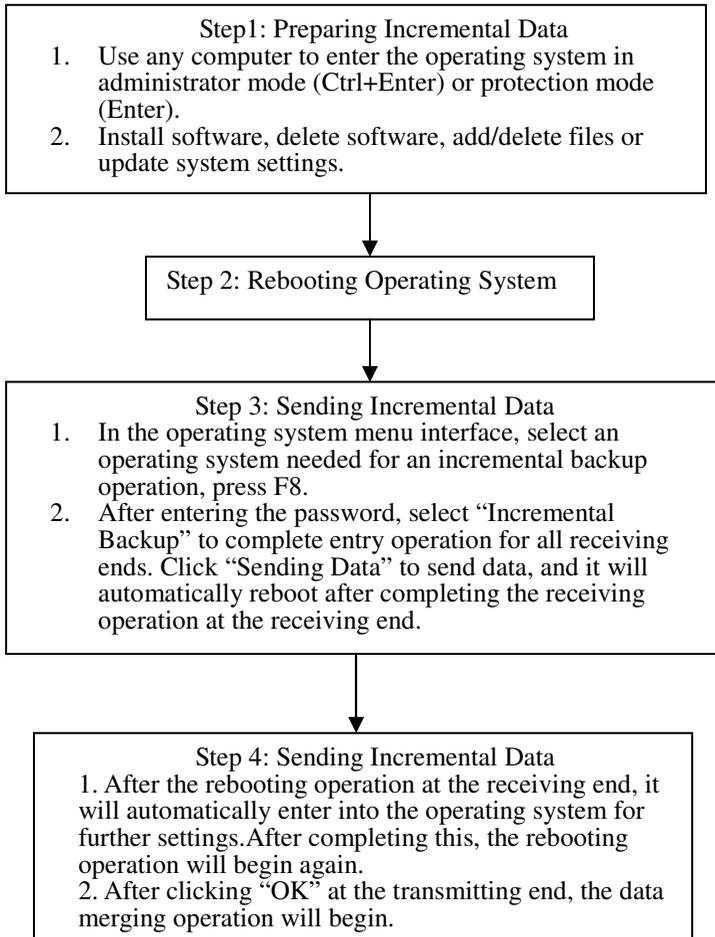
In "NetCopy / Control" interface, click "Restart Receiving End". The receiving end will automatically apply the settings after rebooting.



1. If the data transmission speed is not correct during its transmission, please check the network environment or refer to section 5.5 "Network Parameter Adjustment" to adjust parameters.
 2. If any receiving end is disconnected during transmission, refer to section 5.3 "Transferring from Break point".
-

3. Incremental copy - Installing, Deleting Software, Modifying System Settings

3.1 Flow of Incremental copy



(Figure 3-1)

3.2 Prerequisites for Incremental copy

1. The disk recovery attributes in OS must be instant recovery attributes.
2. Evosys Windows system driver must be properly installed on the transmitting end.
3. The recovery mode for an OS being sent must be a recovery mode.

Example: Every Recovery/Daily Recovery/Weekly Recovery/Monthly Recovery/Manual Recovery.



1. Incremental copy is taken based on the operating system. Each time only one OS partition is used as a base of operation. Partition data with no recovery setting is not available for incremental copy.
 2. If “No Protection” is set for OS recovery mode, this OS does not support this incremental copy function.
 3. If the option “Prohibited Use of Incremental copy Settings” is ticked or an option for supporting incremental ability is deleted in the Advanced OS setting, this Incremental copy is also not available for such an operating system.
-
4. NetCopy must be first executed on both the transmitting and receiving ends (i.e. the copied data for OS installed in the transmitting end and receiving end must be completely identical). Be sure that the “Incremental Support Status” is not ticked in the advanced system setting before performing NetCopy.

※The above four conditions are required for incremental copy, and if any of them is being modified, please follow the manual!

3.3 Incremental copy Function

3.3.1 Preparing Incremental copy

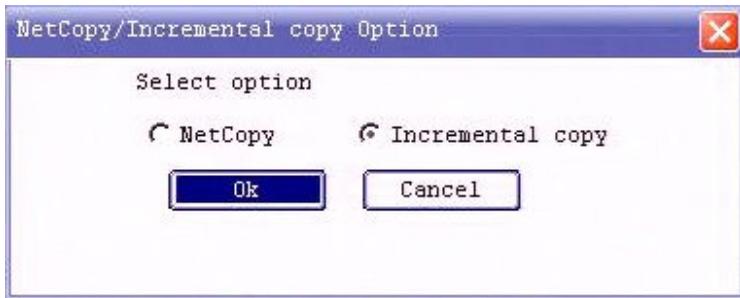
In the system menu, select a transmitting end for incremental process, enter into the OS in administrator mode or protection mode, add/remove software from the system, and modify computer system settings. After completing your operation, start your system again.



If you need to start your system again during software installation, enter into your system in “Temporarily Reserved (Ctrl+K)” mode after startup.

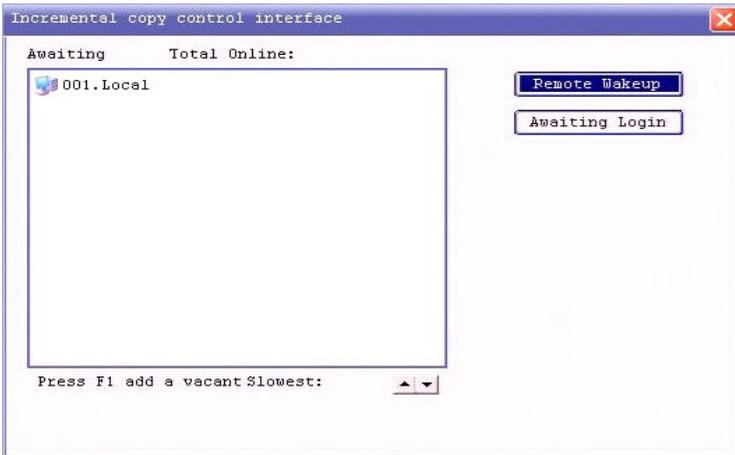
3.3.2 Performing Incremental copy

1. In the Evosys OS menu, use up or down direction keys to select an OS for incremental copy, and press F8. After entering the administrator password, select a copy option for your copy process as shown in figure 3-2.



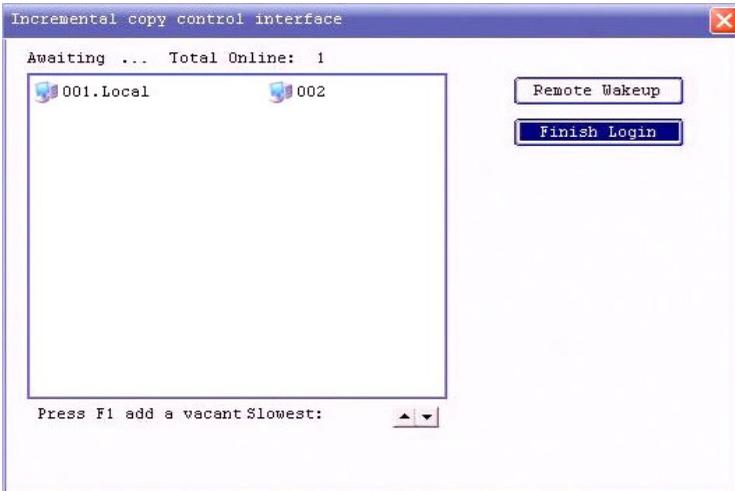
(Figure 3-2)

2. Select “Incremental copy” to enter into incremental copy control interface.



(Figure 3-3)

3. Click “Awaiting Login” to wait for login from the receiving end.
4. When a login process is made from the receiving end to the transmitting end, the transmitting end will check the data status on the receiving end. If there is a difference between them, a NetCopy will be taken. (Figure 3-4)



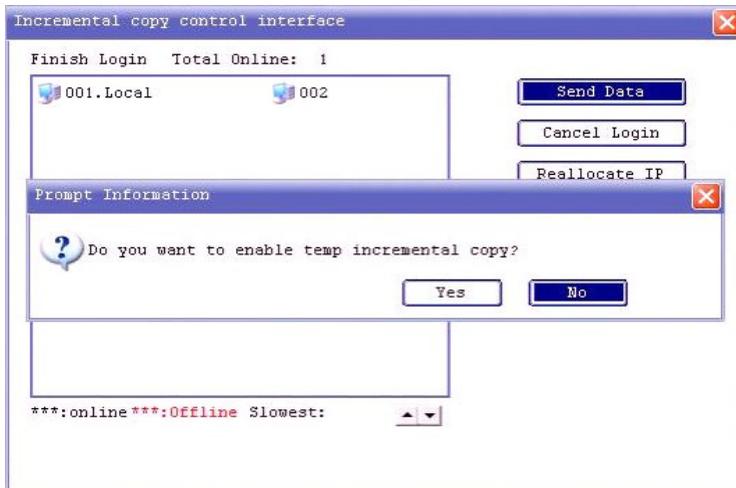
(Figure 3-4)

5. After completing the login process on all computers for incremental copy, click “Finish Login” to confirm computers for incremental copy being taken (Figure 3-5).



(Figure 3-5)

6. Click “Send Data”, and the transmitting end will ask whether to enable a temporary incremental copy.

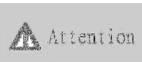


(Figure 3-6)

Select “Yes” to enable a temporary incremental copy; or select “No” to quit the permanently incremental copy.

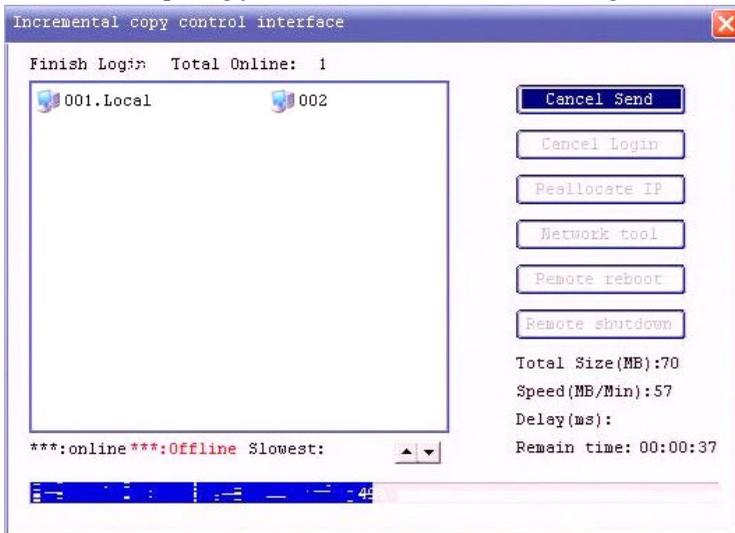
Using a temporary incremental copy is allowed in the following situations:

1. The login process is not occurred on all receiving ends for this incremental copy.
2. Data is sent to the receiving ends for temporary use.
3. If you want to install different software onto different computers, and maintain a uniform incremental copy on all computers.



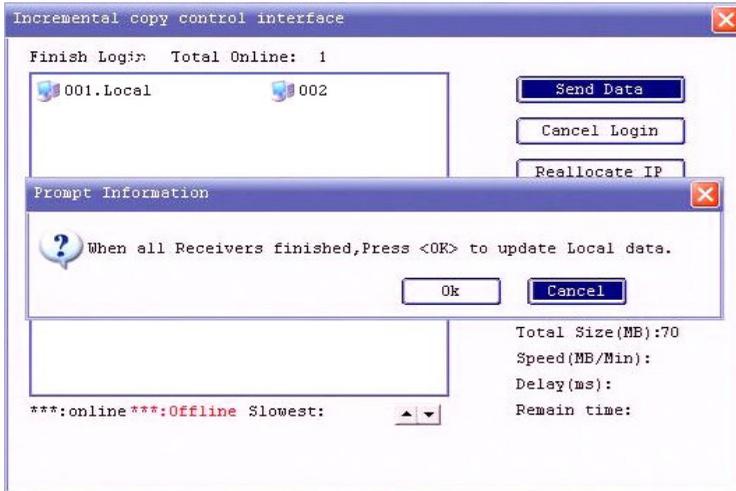
If a temporary incremental copy is taken, the incremental data on the sending and receiving ends can be resumed back to the original status before incremental copy is taken. For more information about a temporary incremental copy function, refer to section 5.2 “Temporary Incremental Copy - Differential incremental Copy”.

7. After completing your selection, start to send data. (Figure 3-7)



(Figure 3-7)

8. After completing data dispatch on the transmitting end, the system will ask user whether to complete this incremental deployment (incremental copy) if a temporary incremental deployment is not enabled. If all receiving ends have received incremental data and entered into the corresponding OS for IP modification and hardware message collection, click “OK” to complete this incremental update process. (Figure 3-8)



(Figure 3-8)



1. If a non-temporary incremental copy is taken on the transmitting end, enabling OS is not allowed by users until this incremental copy operation is completed.
2. If any disconnection occurs on partial computers during transmission over network, you can click “Cancel” while a prompt appears (Figure 3-8). An incremental copy can be taken again after a login is processed on all disconnected computers.
3. All incremental copy actions on all receiving ends can be automatically processed without administrator intervention.

9. After completing the incremental copy on the receiving ends, a merge of this incremental data and local data will be taken. After completing this, the receiving end will start automatically, and enter into an OS, which has just finished this incremental copy, for updating the local host computer name and IP address.

4. Installing Evosys on Existing OS

4.1 Installing Evosys Hardware Protection Card

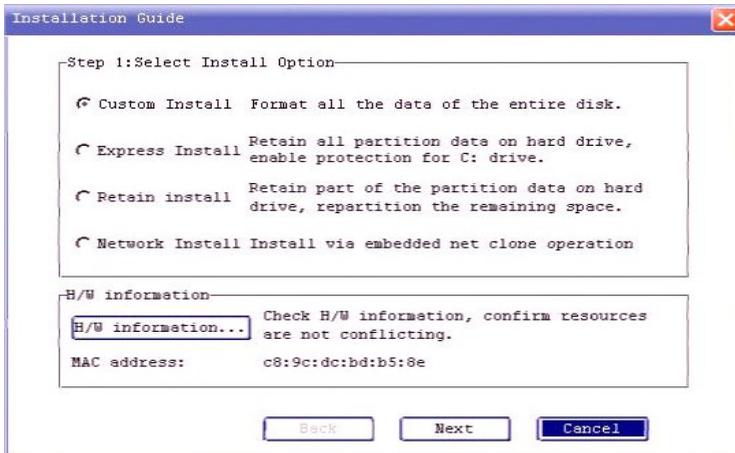
- For more information, refer to section 2.1.

4.2 Selecting an Installation Method

Before using Evosys, an OS should be installed. When installing Evosys, you can select one of two installation options: Express install or Retain install.

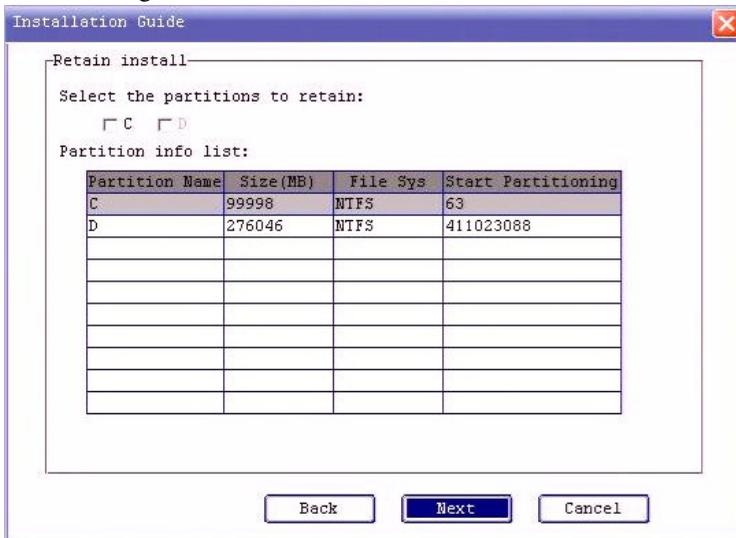
4.2.1 Express Install or Retain Install

After the setting level drivers are loaded, Evosys will show an interface for your first installation as shown in figure 4-1.



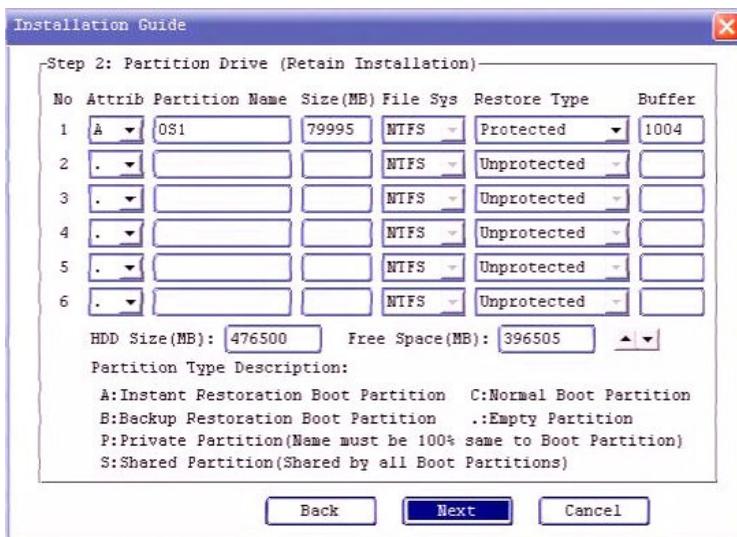
(Figure 4-1)

- You now have the choice of two installation options:
1. “Express install”: The system will reserve all partition data on the hard disk drive, and you can select any partition for protection purposes.
 2. “Retain install”: Only the first partition is reserved on disk C, and the remaining spaces are setup on the hard disk drive. An example here demonstrates partitions by using “Retain install” (Figure 4-2).
- A、 After selecting “Retain install”, click “Next” to appear the following screen.



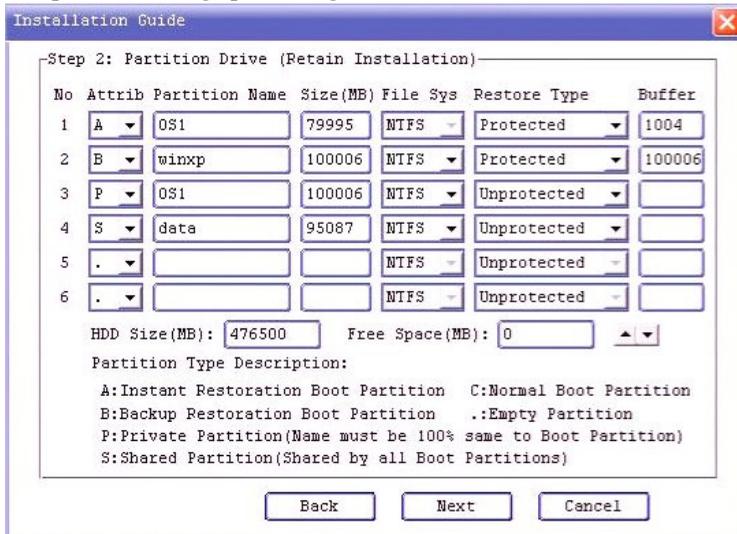
(Figure 4-2)

Select a partitions being reserved (an example here demonstrates the reservation of partition C), click “Next” as shown in figure 4-3 ◦



(Figure 4-3)

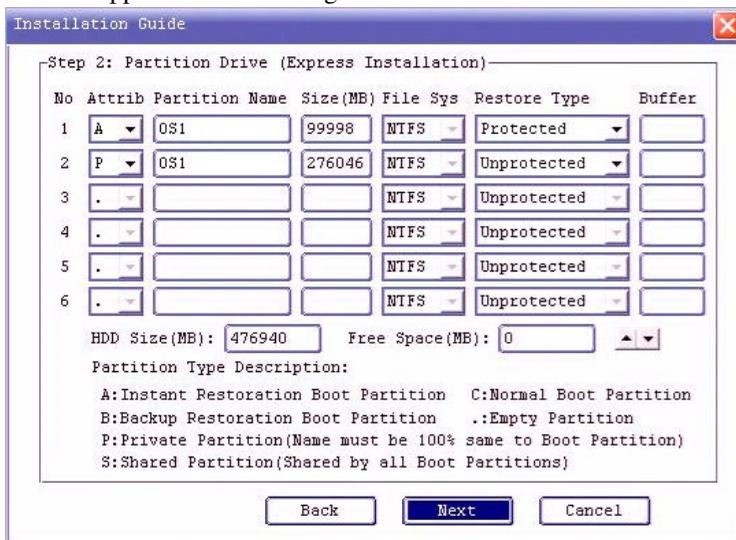
Setup all remaining spaces (Figure 4-4).



(Figure 4-4)

After confirming the correctness of partitions, click “Next” as shown in figure 4-6.

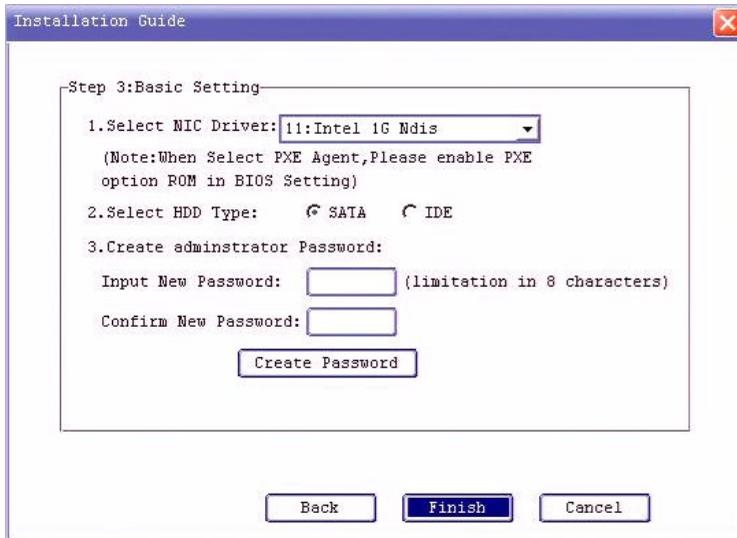
B、After selecting “Express install”, click “Next”, and an interface will appear as shown in figure 4-5.



(Figure 4-5)

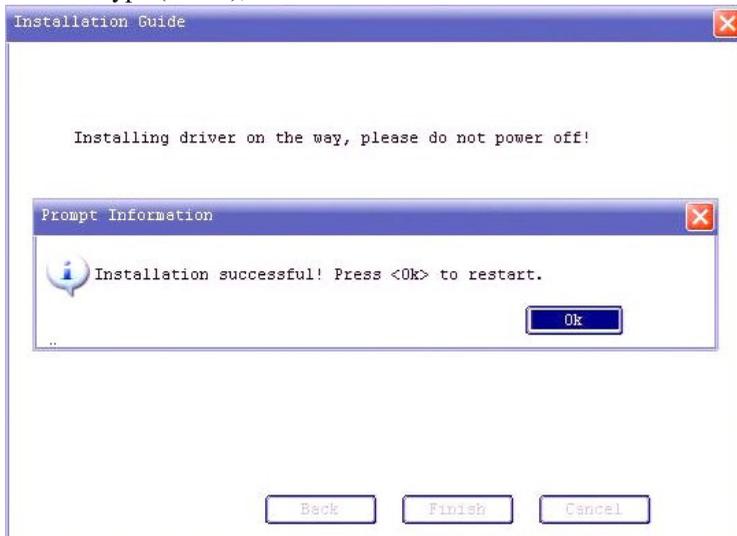
Evosys will automatically read the partition size for existing OS, enable partitions in disk C, and by default, it is set to A attribute with the instant recovery ability for enabling partitions. The partition name is OS1 by default. This name can be changed, but the volume size for partition may not be changed. Meanwhile, the file format cannot be changed, but the protection option is allowed. A dynamic register function will be adopted for all register areas.

※ Note: for some new Windows OS, the first partition will be 100MB reserved for system partition. Please change disk C to A type, and change the 100MB system partition to P type.



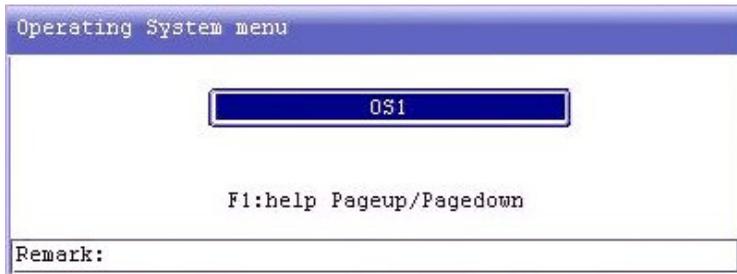
(Figure 4-6)

Select a corresponding network card type and hard disk drive interface type (SATA), and then click “Finish”.



(Figure 4-7)

After clicking OK, the computer will automatically start, and a box will appear as shown in figure 4-8.



(Figure 4-8)

The process for installing Evosys setting level driver programs is completed.

4.2.2 Installing OS

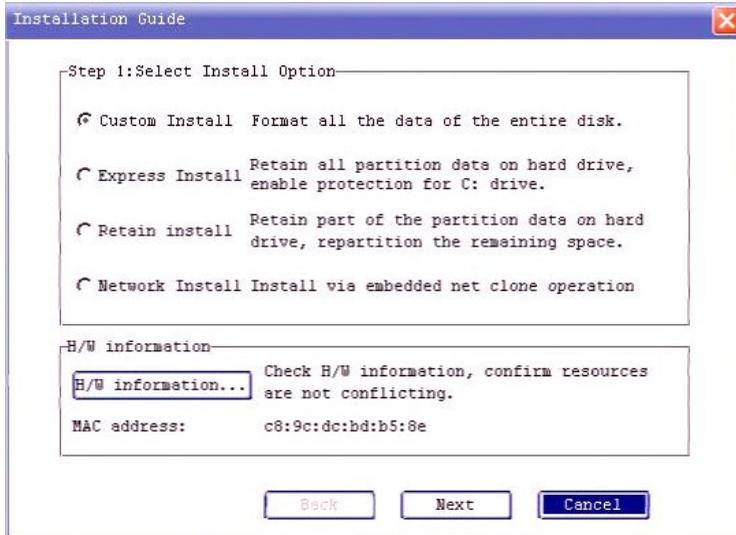
For more information about a new planned OS, refer to section 2.3.2. If you are using retaining OS or express install, please skip this step.

4.2.3 Installing Evosys Driver Programs

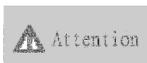
For more information about installing Evosys system drivers, refer to section 2.3.3.

4.3 Network Install

Network install function is provided to every user to select drivers for network card and NetCopy mode as shown in figure 4-9.



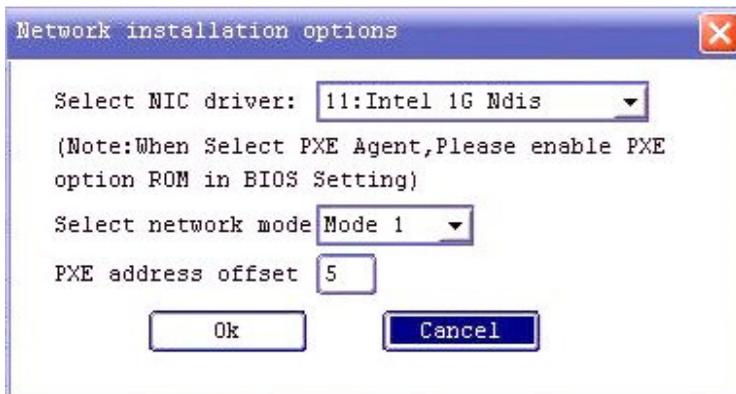
(Figure 4-9)



Attention

In the figure, this “Localhost MAC address” shows the network card MAC address for local host. If this field is empty or shows zeros, it denotes the initialization for network is not correct. Click “Network Install” again to select a correct network card type.

Select “Network Install”, click “Next”, and a dialog box will appear as shown in figure 4-10.



(Figure 4-10)



1. If “PXE Agent” is selected for network card driver, enable “PXE ROM” function in CMOS setting, and connect the network cables.
2. This PXE address offset is intended to be used when the “PXE Agent” is already selected for network card type but there is no way to initialize this network card (※MAC address is 0 or empty).

4.4 NetCopy on Receiving end

Refer to section 2.4 about “NetCopy on the Receiving End”.

5. Advanced User Guide

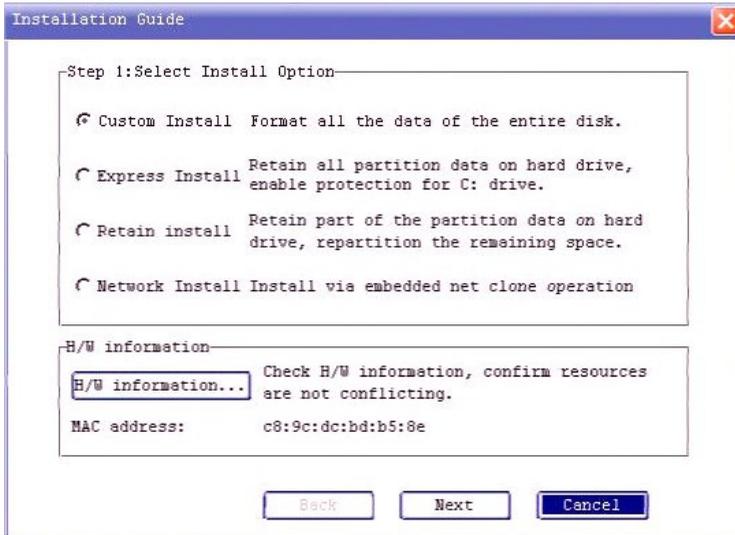
5.1 Installing Multiple OSs

5.1.1 Installing Evosys

For more information about installing Evosys, refer to section 2.1.

5.1.2 Selecting a Installation Option (Custom Install)

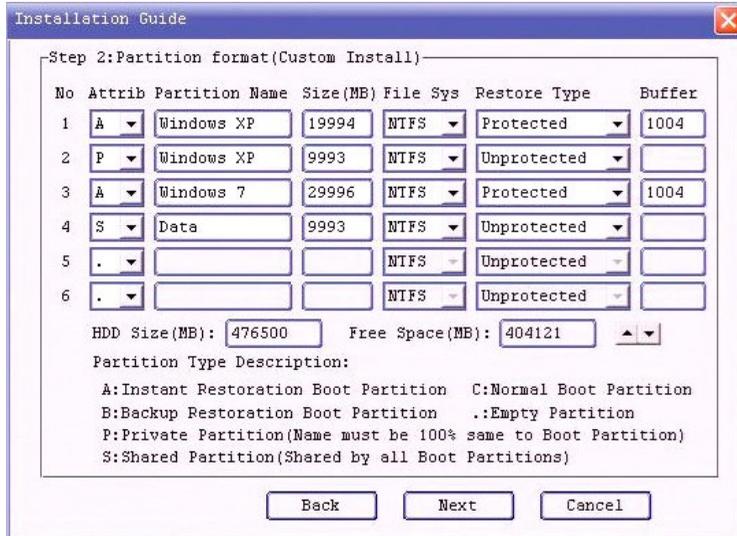
After loading the setting level drivers, an interface will appear for your first installation as shown in figure 5-1.



(Figure 5-1)

5.1.3 Using Evosys to Setup Hard Disk Partition

Select “Custom Install” to setup hard disk partition as shown in figure 5-2.

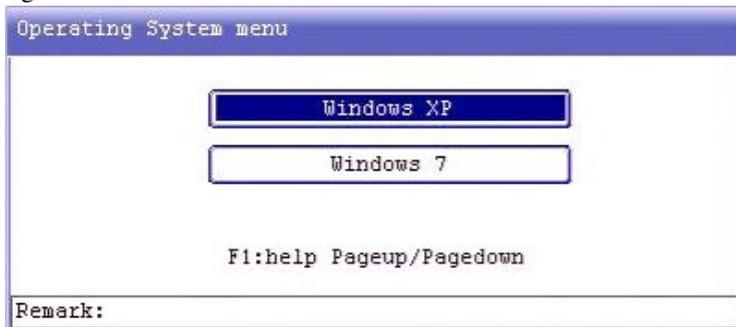


(Figure 5-2)



1. You may setup your different partitions for installing various OS. Maximum 16 different OSs are supported. Each of them has at most 9 data partitions (including dedicated and shared data disk partitions), and maximum 40 disk partitions are available.
2. If installing Windows 2000, all related system partitions (including dedicated and shared data disk partitions) are setup to the first 137GB of disk spaces, otherwise an error will occur due to the limitation of the Windows 2000 system itself.

After confirming the correctness of disk partitions, click OK, the system will start, and an OS menu screen will appear as shown in figure 5-3.



(Figure 5-3)

5.1.4 Installing OS and Applications

For more information about installing OS and application software, refer to section 2.3.2.

If multiple OS(s) are being installed, each of them should be installed in the same way, but if Linux OS is being installed, please select backup recovery (B) for it.

5.1.5 Installing Evosys Driver Programs

For more information about installing Evosys OS driver, refer to section 2.3.3.

5.1.6 NetCopy, and Automatically modifying IP Address

For more information about NetCopy on the receiving end, refer to section 2.4.

5.2 Temporary Incremental Deployment - differential incremental copy

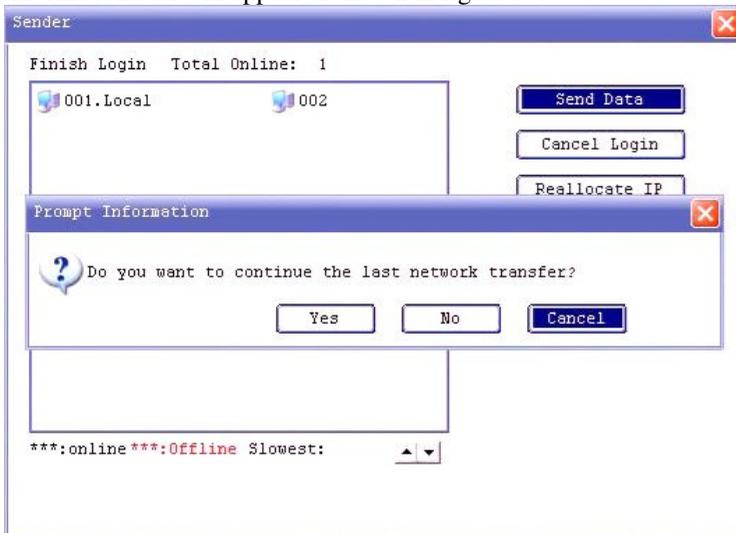
This temporary incremental deployment can carry out multiple differential environments, and also maintain a consistent incremental copy throughout the environment.

5.2.1 Right Time to Applying Temporary Incremental copy

- For deploying different application software environments on different computers. ◦
- For temporary software deployment.
- For environment test before permanent incremental deployment.

5.2.2 Temporary Incremental Deployment Function

To use the incremental copy, click “Send Data”, and a prompt information box will appear as shown in figure 5-4.



(Figure 5-4)

Select “Yes” to enable this temporary incremental deployment. After completing data dispatch, the receiving end will automatically start again and complete this update, without update actions taken on the transmitting end.

5.3 Continuously Transferring from Break Points

“Continuously transferring from break point” is a carefully designed solution for conquering any problem generated from the NetCopy. With this function, the maintenance loading can be reduced and maintenance flexibility can thus be enhanced.

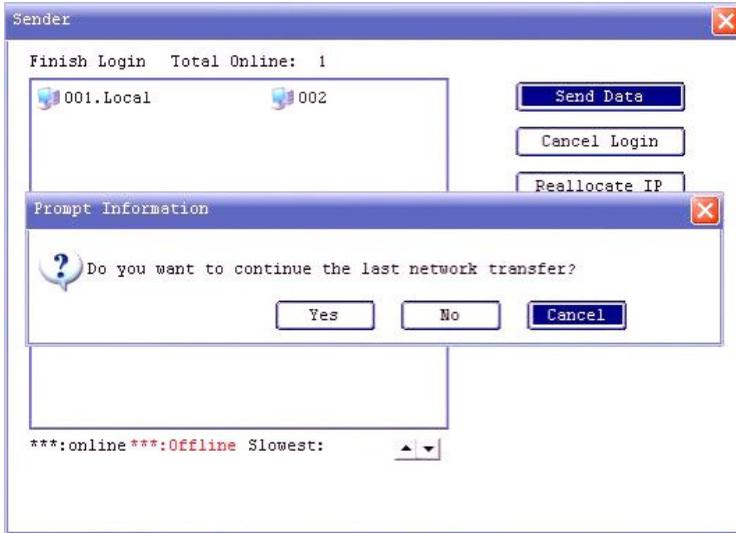
5.3.1 When to Apply “Continuously Transferring from Break Points”

- Power outage or power interruption during computer network dispatch.
- Computer crash shutdown occurring during computer network dispatch.
- Network disconnection encountered at the receiving end during computer network dispatch.
- Network dispatch terminated due to large quantity of data transfer.

5.3.2 “Continuously Transferring from Break Points” Function

If you encounter any situation described in section 5.3.1 during data dispatch, you can use this function. Follow the steps described below:

1. Enter into the screen shown on transmitting end with the same operation as the last time you used.
2. Click “Send Data”, and a prompt will appear as shown in figure 5-5.



(Figure 5-5)

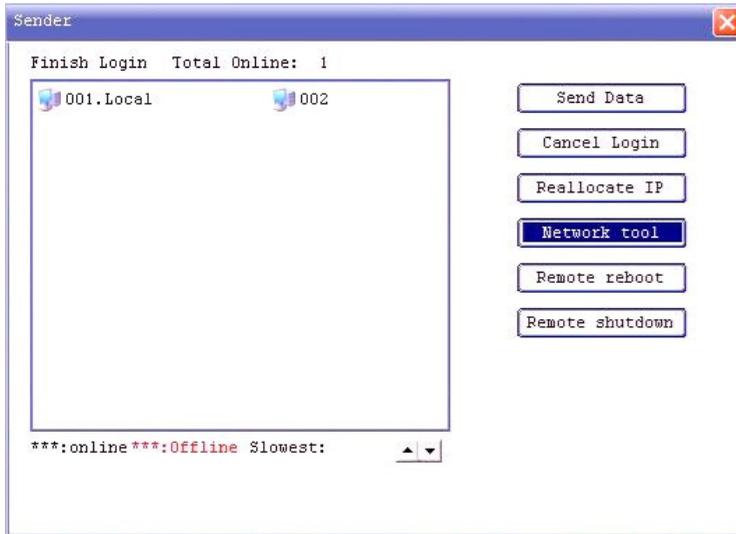
3. Select “Yes” to continue the last network transfer operation.



1. Incremental copy and NetCopy supports the mechanism of continuously transferring from break points.
 2. Consistent network environment needed for continuously transferring from break points.
 3. When transferring from break points, do not enter into OS, or this break point function will not be available.
 4. If you need to provide a support to continuously transfer from break points in the event of a sudden outage or shutdown, refer to “Enabling Break Point Log for transmitting end” in section 5.5 ”Adjusting Network Parameters”.
-

5.4 Network Tools

In transmitting end interface for network copy, once you complete all login processes from all receiving ends, click “Finish Login”, and a dialog box will appear as shown in figure 5-6. Click “Network Tool” button. A network tool dialog box will appear as shown in figure 5-7.



(Figure 5-6)



(Figure 5-7)

5.4.1 Network Upgrade

In the network tool menu as shown in figure 5-7, click “Network upgrade” to transfer the same setting level driver from the transmitting end to the receiving end. After transferring, the receiving end will restart, and the upgrade on receiving end is thus completed. The prerequisite condition for the network upgrade is that the setting level driver and system parameters should be consistent on both the transmitting end and the receiving end.

5.4.2 Sending Parameters

After the user changes some settings on the transmitting end (such as changing the partition protection attribute from “Every Recovery” to “Daily Recovery”, etc.) and saves them, this “Send Parameters” function can be used to apply the same changes to the receiving end. In “Network Tool” as shown in figure 5-7, click “Send Parameters” function. The receiving end will restart after sending, and apply the same settings.

The requirement for you to send parameters is that the setting level drivers installed onto the original transmitting end and the receiving end must be consistent.

5.4.3 Sending CMOS Settings

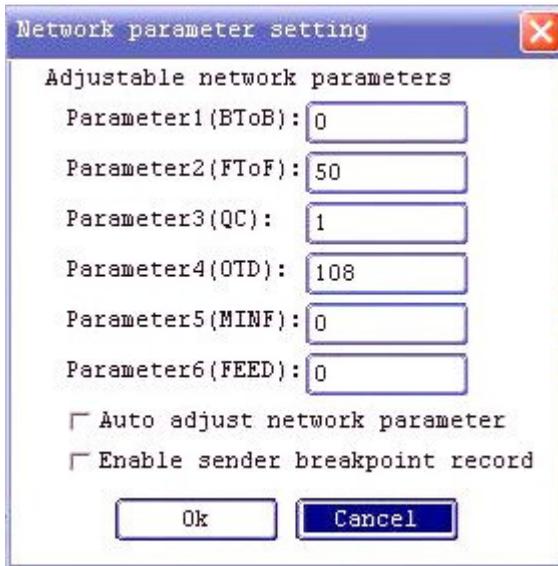
After the user modifies some CMOS settings on the transmitting end (such as Boot sequence, 1st: CD-ROM, 2nd: HDD, 3rd: LAN, etc.) and saves them, select the “Send CMOS Settings” function to apply the same settings to the receiving end. In “Network Tool” interface as shown in figure 5-7, click “Send CMOS Settings” to send data. The transmitting end can control the receiving end to restart, and thus complete the CMOS settings of the receiving end and achieve the requirement of CMOS synchronous setting. The prerequisite condition to send CMOS settings is that computer hardware, BIOS specification and version for both the transmitting end and the receiving end should be consistent.

5.4.4 Time Synchronization

To achieve synchronicity for the receiving ends and the transmitting end, use the “Sync Timer” function. In “Network Tool” interface as shown in figure 5-7, click “Sync Timer”. After transferring, the transmitting end can control the receiving end to restart. In this way the time synchronization function at both the receiving and the transmitting end can be accomplished.

5.5 Adjusting Network Parameters

In “transmitting end” interface, press F10 to pop up the “Network Parameter Setting” dialog box as shown in figure 5-8. The user can use it to adjust the network parameters corresponding to the Evosys. For more information about parameters, refer to the detailed description below.



(Figure 5-8)

Detailed Description of Parameters:

- A. Parameter 1 (BToB): for adjusting the data transmission delay over the network and the switch flow control. This parameter is seldom used, and the shortcut keys (Shift + or Shift -) can be alternatively used during network transmission.

- B. Parameter 2 (FToF): for adjusting network FPS delay time. This parameter is available for all switches. Adjusting this parameter can significantly affect the network transmission speed. Dynamically adjusting the setting is also supported during network transmission. Its corresponding shortcut key is “+” or “-“.
- C. Parameter 3 (QC): for data inquiry from the transmitting end over the network. This parameter can be greater than or equal to 1. It is mainly used for lower feedback from the receiving end, or for further adjusting due either to duplex data forwarding from the switch or to the flow limit. This parameter also supports dynamic adjustment and setting. The shortcut keys, left and right direction keys, can be alternatively used for dynamic adjustment purpose.
- D. Parameter 4 (OTD): for setting network disconnection. To this parameter, the setting value 18 denotes 1 second, 108 denotes 6 seconds. If a transmitting end does not receive any response data from the receiving end during a specified time period, this host will be viewed as a disconnected host, and if this value is set to a greater value, the data flow of the whole network transmission will be significantly affected.
- E. Parameter 5 (MINF): This is a least value for parameter 2, i.e. at the time of sending data, press “-“ to reduce it to a least value. For a 100Mbps network card used in a 1000Mbps switch environment, we suggest you set this value to >35.
- F. Parameter 6 : For adjusting a delay time of the response packets sent from the receiving end during network transmission, and for resolving lower transmission speed due to a larger number of computers being used. After modifying this parameter, the sending parameter function in “Network tool” can synchronize the receiving end, and this modified parameter can thus be enabled after successful login and dispatching.

- G. **Automatically Adjusting Network Parameters**
The system will automatically adjust network parameter settings, but the user may consider the needs based on the actual environment, and you can also manually setup the parameters for your onsite use.

- H. **Enabling the break point log on a transmitting end:**
After enabling this function, a transmitting end can continue transfer data from a previous break point when a power outage or computer crash shutdown has been encountered at the transmitting end site.

6. Guide to Setting Evosys Management Function

6.1 System Operation Modes

Two operation modes are available for an OS existed on a computer where Evosys is installed: Administrator mode and Protection mode.

6.1.1 Administrator Mode

In Administrator mode, the user can directly write any data to the disk while OS is running. Even if the system is restarted, all changed data is still stored on disk.

Entering mode: In the Evosys OS menu, use direction keys to select the desired OS, then press Ctrl+Enter key to enter into this OS in administrator mode.



For an OS protected with instant recovery, if the user does not install Evosys system drivers in Windows environment, user can enter into an OS in administrator mode, but other systems are not available for you to do so (e.g. Ctrl+K, Ctrl+R, Ctrl+B).

6.1.2 Protection Mode

Entering mode: In the Evosys OS menu, press ENTER key or left mouse button to click an OS to enter into the system in protection mode.

In Protection mode, any OS data changes made by the user (or virus) will be written into the Evosys buffer area. Once the computer is restarted, all data will be resumed from their original default settings, and all changes made by user (or virus) will be cleared.



Evosys will add an icon in the Windows notification area during the Windows system driver installation. Click the left mouse button two times on this icon, and the system status will appear. The user can determine the current working mode with this function, and temporarily record the usage status of the buffers.

6.2 Recovery / Backup / Preservation

Evosys Hard Disk Protection Functions: Data Recovery / Preservation / Backup / Incremental Recovery.

- a、 Recovery (Ctrl+R): Evosys can restore an OS selected by user to the status of previous recorded point.
- b、 Backup / Permanent Rrite (Ctrl+B): Evosys permanently writes to disk all previous OS operation data under the protection status and further updates the system record point.
- c、 Preservation (Ctrl+K): Evosys will preserve OS operation data occurred under the previous protection status, and for the time being does not restore data status modified by users.

6.2.1 Restore

Before entering into OS, select an OS being restored in the OS menu interface, and then use the shortcut key Ctrl+R to restore this OS. Evosys will prompt you about this successful recovery and restore it to the previous record status.

6.2.2 Backup (Permanent Write)

1. Before entering into OS, select an OS backup name in the OS menu interface, and press the shortcut key (Ctrl+B) to backup this OS. Password verification is needed for this operation.
2. After passing this password verification, Evosys will carry out this backup, and Evosys will update record point for this system.

6.2.3 Temporary Preservation

(1) Before entering into OS, select an OS name being reserved in OS menu interface, then press shortcut key (Ctrl+K) to carry out this purpose. User can setup whether the password verification must be made or not.

(2) After passing this password verification, Evosys will reserve previous OS data (the recovery will be ignored) and directly enter into this OS.

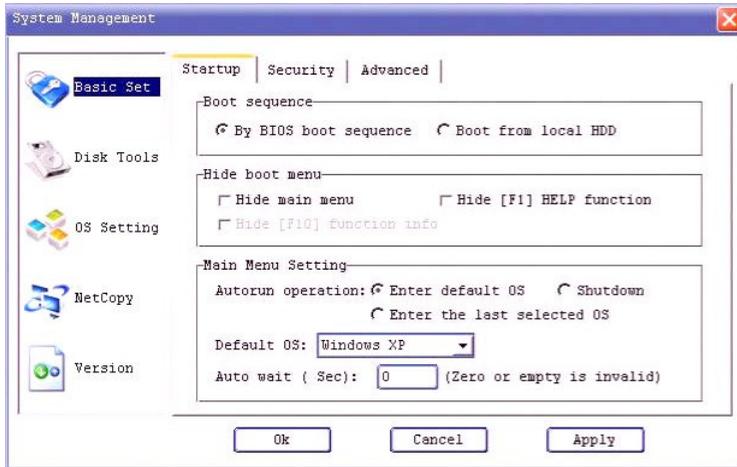
6.3 System Administration

Press the shortcut key F10 in the OS menu interface, input a correct administrator password (**it is empty by default**) to enter into the system administration interface.

System administration functions include: basic setting, tools for hard disk derive, OS setting, network setting, removing OS, and upgrade.

6.3.1 Basic Setting – Startup Setting

After entering into Evosys system administration interface, the system will enter into “Startup” tag in “Basic Set” by default (Figure 6-1).



(Figure 6-1)

1、 Boot Sequence

- a、 By BIOS boot sequence: the computer startup sequence is based on the BIOS setting sequence.
- b、 Boot from local HDD: the computer will be directly started from the local hard disk drive, and all BIOS settings will be ignored.

2、 Hide Boot Menu

- a、 Hide main menu: if this is ticked, this OS menu interface will not display during the Evosys startup, but a default OS will be directly started as shown in figure 6-1. After enabling this function, you can select “Disable F10 key prompt message”. From here, you can select prompt message “Please press F10 key call the GUI” at the upper left corner on the screen.
- b、 Hide F1 key description: if this is enabled, “F1: description” shortcut key prompt will not display in OS menu interface.

3、 Main Menu Setting

Autorun operation: an action can be automatically taken after a back-off time has passed, and then select any of “Default OS”, “Shutdown”, or “Enter the last selected OS” for further operation.

Enter default OS: if Autorun is set to “Default OS”, the computer will enter into a specified OS after the back-off time has passed.

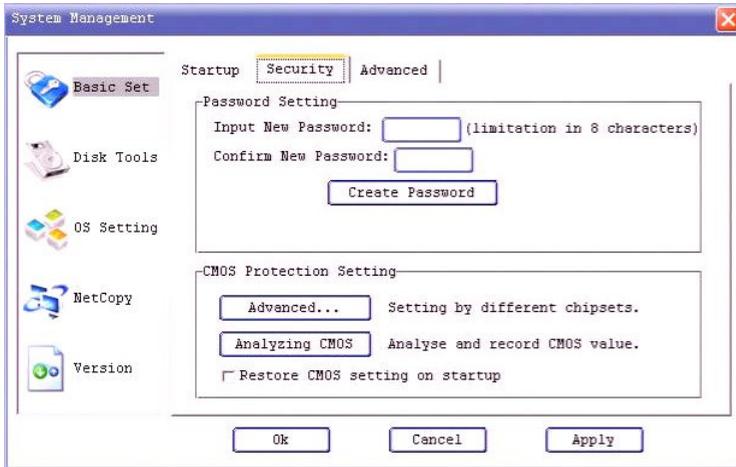
Auto wait (sec): for setting a time period to carry out this Autorun. If 0 is used, this Autorun is not enabled.



“Auto wait (sec)” should be set according to your physical network setting. If only a few seconds is allowed in a poor network environment, a failure login from the receiving end to the transmitting end will occur during NetCopy.

6.3.2 Basic Setting – Security Setting

After entering into Evosys system administration, click “Basic set”, and then select “Security” tag to enter into the Security setting interface as shown in figure 6-2.



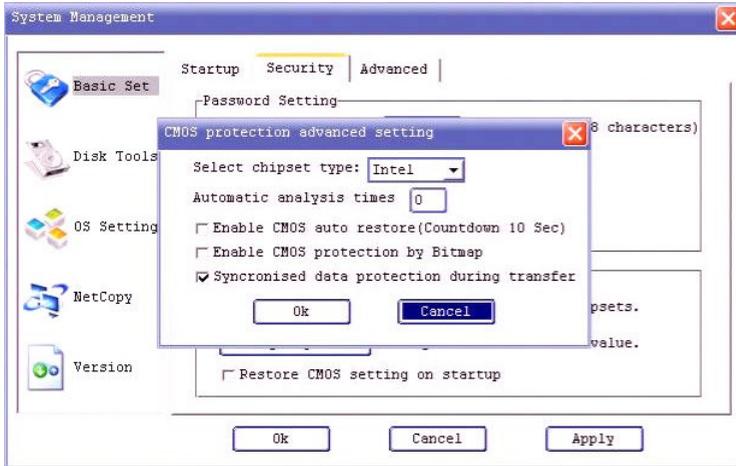
(Figure 6-2)

1. Administrator Password Setting

The Evosys password can be changed again in this setting interface, and it must contain 8 characters, including digits, English characters (case-sensitive), and punctuation marks. After setting, click “Create Password” to change the original password.

2. CMOS Protection Setting

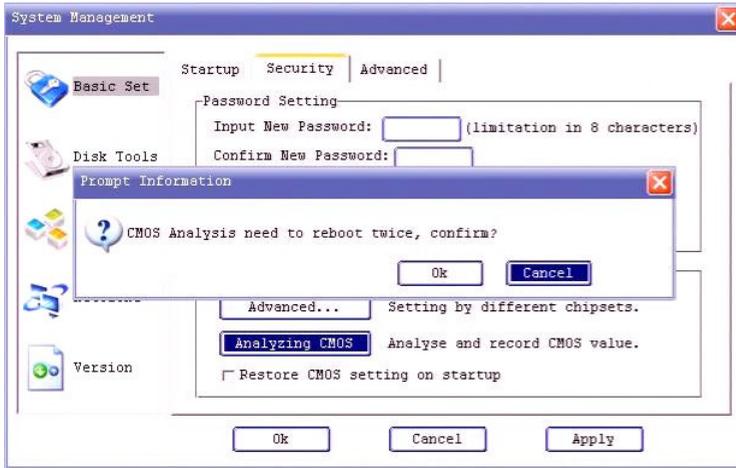
Click “Advanced” setting in CMOS protection advanced setting as shown in figure 6-3.



(Figure 6-3)

1. In CMOS advanced protection setting box, you can select chipset type, specify automatic CMOS analysis times, enable CMOS auto restore and/or CMOS protection by Bitmap, and then click OK.
2. **Enable CMOS auto restore function:** If any garbled CMOS data is detected by Evosys, Evosys will automatically restore original CMOS settings to the protection setting status if no further action is taken within 10 seconds.
3. **Enable CMOS protection by Bit :** If a normal analysis is not possible on any CMOS motherboard, it can be effectively identified.
4. **Synchronized data protection during transfer:** CMOS settings can be transferred to the remote computer if synchronous transmission is set for CMOS.

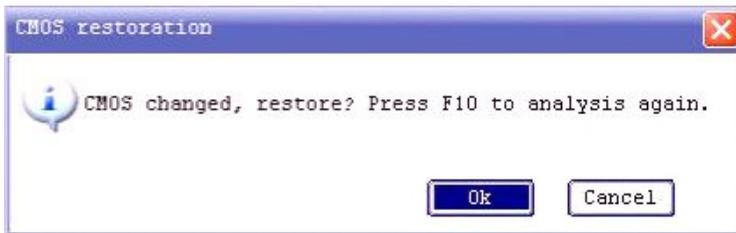
Click “Analyzing CMOS”, and a prompt will appear as shown in figure 6-4.



(Figure 6-4)

To analyze CMOS, click OK to save it; or click Cancel.

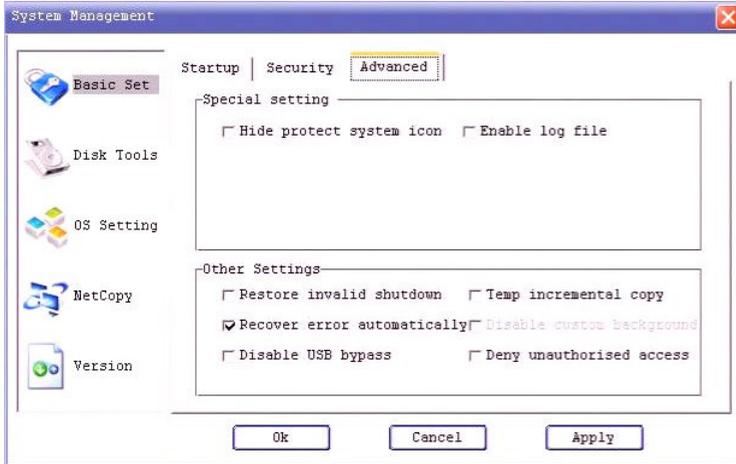
Restore CMOS Setting on Startup: After enabling “Analyze and record CMOS value”, each time a computer is started, Evosys will check whether the CMOS settings are garbled (Figure 6-5).



(Figure 6-5)

6.3.3 Basic Setting – Advanced Setting

Select “Advanced...” to enter into the Advanced setting interface as shown in figure 6-6.



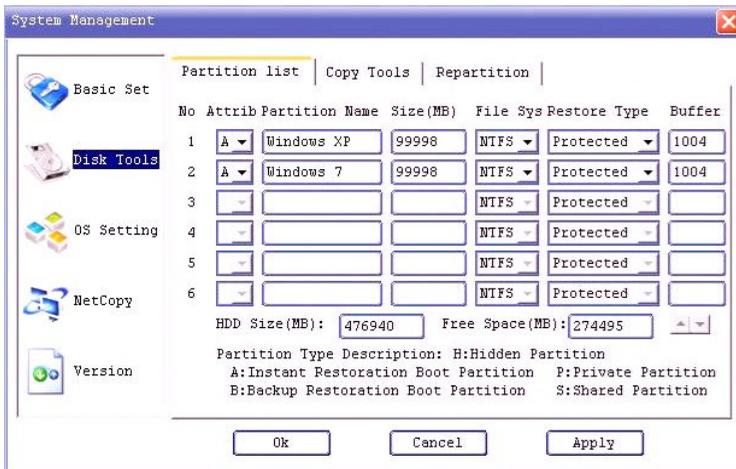
(Figure 6-6)

1. **Hide Protect System Icon:** To hide the protection system icon if this function is enabled.
2. **Enable Log File:** To record all operations into a log file if this function is enabled (for testing purpose only, we don't suggest you enable it).
3. **Restore Invalid Shutdown:** This function is to be used if OS is not set to “Every recovery” (e.g. “Daily recovery”). The system will automatically restore it but not continuously reserve it if OS is not properly shutdown.
4. **Enable Temp Incremental Copy:** For enabling temporary incremental copy function.
5. **Disable USB:** Startup from USB is prohibited because of potential damage to HDD data from a USB startup.

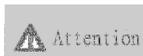
6. **Enable Disk I/O Protection:** After enabling this, HDD data can be prevented from damage generated from a CD or USB startup.
7. **Disable Custom Background:** to delete custom background image, and restore it back to the default Evosys system background image.

6.3.4 Disk Tools – Partition Information

In system administration interface, click “Partition list” tab in “Disk Tools” as shown in figure 6-7.



(Figure 6-7)



If a partition message is highlighted, it denotes that the modification is not allowed, and the OS in this partition supports incremental copy. If the partition modification is needed, you should disable “OS” -> “Advanced” -> “Incremental Support Status” function.

1、 Restore Type :

User can modify OS recovery mode here.

Startup Sector: (A, B)recovery mode: “Protected” and “Unprotected” supported ◦

Recovery mode for private partition (P): “Unprotected”, “Protected” and “Clear” (Every clear, daily clear, weekly clear, monthly clear) ◦

Startup Sector (C)does not support recovery function.

Shared data disk (S)supports “Every discovery”, “Unprotected” and “Clear” (Every clear, daily clear, weekly clear, monthly clear).



Notes about the clear function on private partition (P)and shared data disk (S) :

- 1、 “Snap Shot” concept is applied to sector clearing function available for FAT16, FAT32, and NTFS. If this clearing function is used, you should format sectors, and then reboot your computer.
- 2、 If you want to change the sector file system format (e.g. FAT32 is changed to NTFS or vice versa), you should also format these sectors, and reboot the computer. The file system format for sectors will also be changed.

2、 Sector Attributes

(1) 、 **Startup Disk Setting** (it is set in the attribute fields):

A: Startup Disk with Instant recovery Ability: it is suitable for installing DOS and Windows OS, and for changing C, P, S, H type attribute sectors.

B: Startup Disk with Backup Recovery Ability: it is suitable for installing DOS, Windows, and Linux OS. Changing A, P, C, S, H type attribute sectors is allowed, and you can also change it to B type even when sector type is changed.

C: Startup Disk without Recovery Ability: it is suitable for installing DOS, Windows OS without using buffers and protection. An ability to change A, P, S, H type attribute sector is supported.

(2) **Data Disk Setting** (it is set in the attribute fields):

S: Shared Data Disk: it is for storing data. In case of comparable sector format used, data can be shared by systems allocated on different sectors. An ability to change A, P, C, H type attribute sector is also supported.

P: Dedicated Data Disk: it is for storing data. In case of comparable sector format used, data in such startup sectors can thus be used, and only if the sector name for a dedicated data disk is the same as that for the startup sector (small/capital letters for disk names are fully identical). An ability to change A, S, C type attribute sector is also supported.

3、Sector Name

An ability to change names for startup sectors and data sectors is supported, e.g. a P type private partition for A type sector system (such as WinXP) is directed to another A type startup sector system (such as Win7).



A protection to dedicated sectors after changing name:

1. If the name changed for a dedicated P type sector name is directed to another dedicated P type startup sector system which supports incremental copy, this name being modified for a dedicated one will be in a “non-protected” status.
2. If the dedicated P type sector for a modified name is directed to another A type startup sector system which does not support incremental copy, this dedicated P type sector for a modified name can support “Protected” and “Clear” or “Unprotected”.

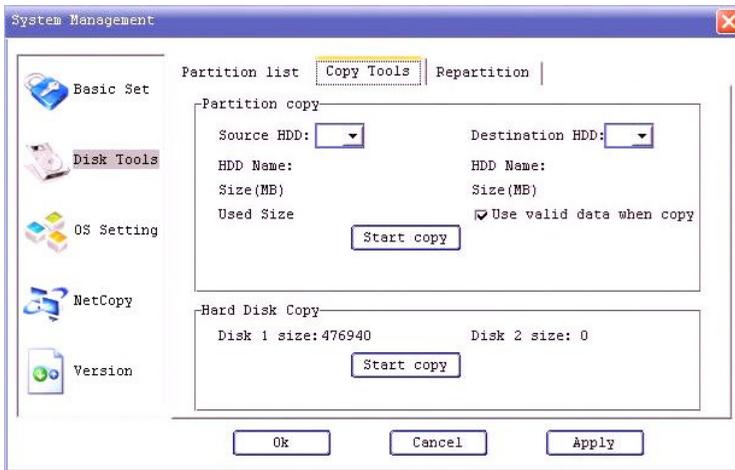
4、 Capacity (MB)

It is a size capacity for partitioned sector. This size should be planned at the installation phase. Once sectors are setup, it should not be changed again.

5、 File System

The sector format for startup sectors and data sectors can be formatted again according to your needs.

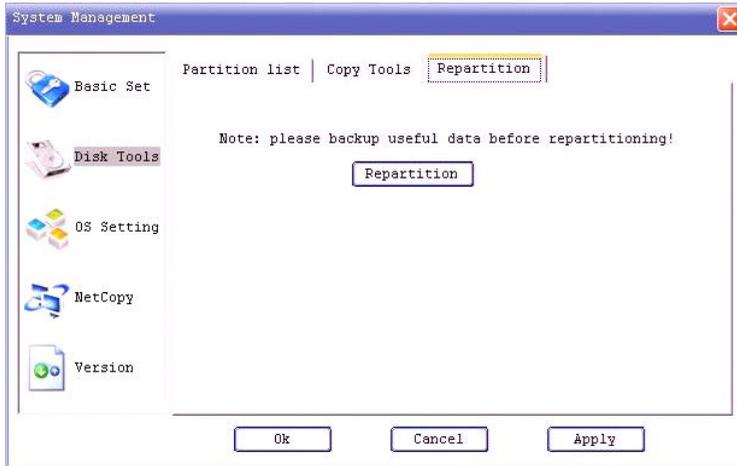
6.3.5 Disk Tools – Copy Tools



(Figure 6-8)

1. **Partition Copy:** This function allows you to install one OS, and the rest can be done through this partition copy (We suggest that the capacity for the target sectors is the same as that for source sectors). ※Note: Windows 7 and Vista do not support this at this moment.
2. **Hard Disk Copy:** This function supports hard disk copy on a single machine, and the source hard disk must be assigned as disk 1.

6.3.6 Disk Tools - Repartition

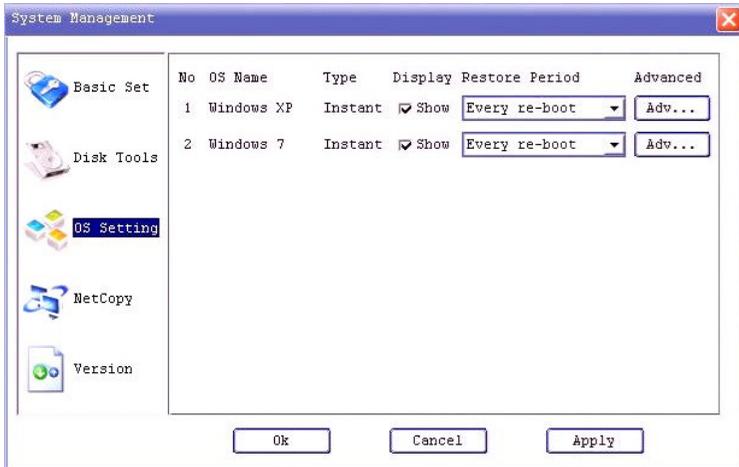


(Figure 6-9)

Repartition: This allows you to partition HDD sectors, and all existing sectors and data will be removed. Before using this function, you must have copied all needed data.

6.3.7 OS Setting

In System Management interface, select “OS Setting” function as shown in figure 6-10.



(Figure 6-10)

1、 Display :

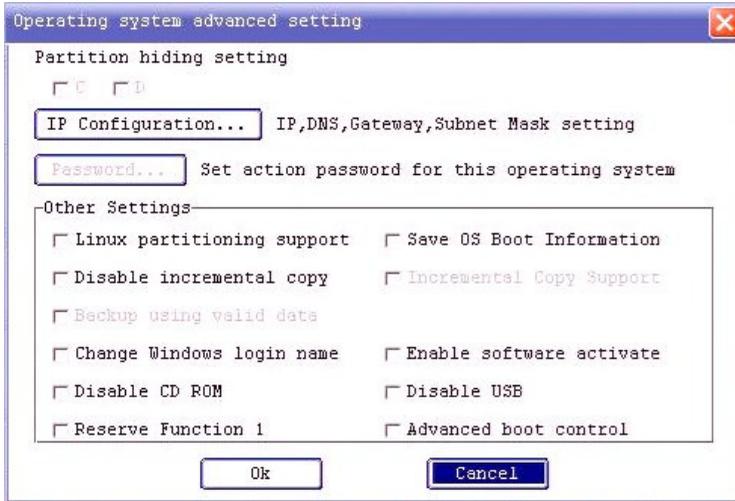
This option allows you to determine whether the OS is displayed in the OS menu. If this function is not checked, the system names will not be displayed in the OS menu.

2、 Restore :

This option allows you to setup Restore mode for the OS, including “Unprotected”, “Every recovery”, “Daily recovery”, “Weekly recovery”, and “Monthly recovery”.

3、 Advanced :

This option is for setting a detailed OS message as shown in figure 6-11.



(Figure 6-11)

Partition Hiding Setting :

This option allows you to select which partition is not to be displayed in this OS. Dynamically adjusting partition attributes can hide a partition at any time.

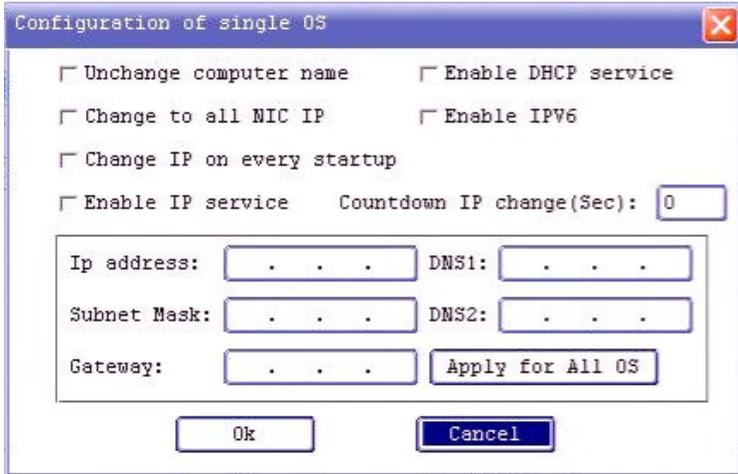
Other Settings :

- A. **Linux partitioning support:** Partition format for Linux and Windows is different. This is mainly used when more than four partitions are used on a Linux system, and these partitions can be displayed in Linux.
- B. **Save OS Boot Information:** This is for special OS(s), such as Sun Solaris.
- C. **Disable incremental copy:** This option allows you to disable an incremental copy for an OS.
- D. **Incremental copy Support:** After the transmission is completed when the incremental copy setting is not disabled for A attribute OS under protection mode, this option will be automatically enabled, and thus this incremental copy supported to OS can be ensured.

- E. Backup using valid data: This option allows you to restore the backup using valid data, and backup whole sectors, including NetCopy. Using valid data can significantly reduce processing time.
- F. **Change Windows login name:** This option allows you to create independent user accounts for an OS. (In general case, user accounts are created for computer-based examination. Windows XP is suggested for this purpose.)
- G. **Enable Software Activate:** If this function is enabled through some software being registered on the transmitting end, these software applications can still be used on the receiving end after dispatching.
EVO Lite and EVO Lan versions do not support such a function.
- H. **Disable CD ROM:** This option allows you to disable the CD ROM in the OS environment.
- I. **Disable USB:** This option allows you to disable USB storage setting in the OS environment, but USB keyboard and mouse are not restricted.
- J. **Preserve Function 1:** This option allows you to deal with an error arising because an HDD message cannot be normally accessed by Win2003 OS.
- K. **Advance boot control:** If Windows7 does not normally run under an OS, the startup menu will allow you to select one OS to run. If an anti-virus software is also installed, we do not suggest you select an OS in order to prevent conflict.

IP Setting... :

Click IP setting to enter into the system IP setting interface as shown in figure 6-12.



(Figure 6-12)

- A. **Unchange computer name** : After completing NetCopy or Incremental copy, the receiving end will not modify the computer name during automatic setting.
- B. **Enable DHCP service** : If the system wants to use DHCP to automatically obtain an IP address but not a static IP address, this option should be enabled. It is only available for this system and does not affect other OS(s).
- C. **Change to all NIC IP** : This option allows an IP address for all network cards on the local host to be the same one allocated for transmission.
- D. **Enable IPv6** : This option allows you to set IPv6 IP address for a used OS.
- E. **Change IP on every startup** : Each time the OS is entered to automatically modify the IP address, the IP address should be set to the one used by Evosys.
- F. **Enable IP Service** : In general this option is not ticked. It is used when the network card drive on the receiving end needs to be searched again after completing NetCopy.

- G. **Countdown IP change (sec)** : This option is used with “Enable IP service” when the network card drive on the receiving end needs to be searched again after completing NetCopy.
- H. **IP address** : This is mainly used to set the IP address for used OS(s). If all OS(s) use the same settings, this option can be ignored.

Password Setting :

This allows you to setup user ID verification for a used OS.

(Note : If an administrator password is not set, this function is invalid as shown in figure 6-13.)



(Figure 6-13)

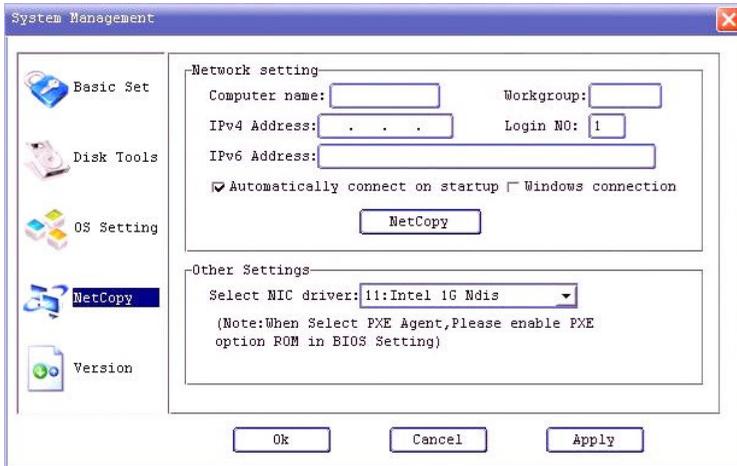
1. **Verify in ALL action:** In the OS menu interface, password verification is needed before you press Enter or use a mouse to click on any item.
2. **Verify in Ctrl+R:** When using Ctrl+R for manual recovery, a system administrator password is needed.

System Password : The password used here is for a used OS, and it can be used to control Ctrl+R, Ctrl+K, Ctrl+B and Ctrl+Enter operations.

✳If a system password is not set, items 1 and 2 will apply this administrator password.

6.3.8 NetCopy Setting

In Evosys System Administration interface, click “Network Setting” button to enter into the Network Setting interface as shown in figure 6-14.



(Figure 6-14)

1、 Local Host Setting

- A、 This interface allows you to set “Computer name”, “Workgroup”, “IPv4 address”, “IPv6 address”, and “Automatically connect on startup” for a local host.
- B、 Automatically connect on startup : If this is enabled, the local host can automatically logon to the transmitting end if any transmitting end over the network is in “Waiting login” status.
- C、 The NetCopy button can be used to enter into the transmitting end for NetCopy.



If the transmitting end uses a Workgroup name, the logon to the transmitting end can be only permitted from the receiving end under the following two situations:

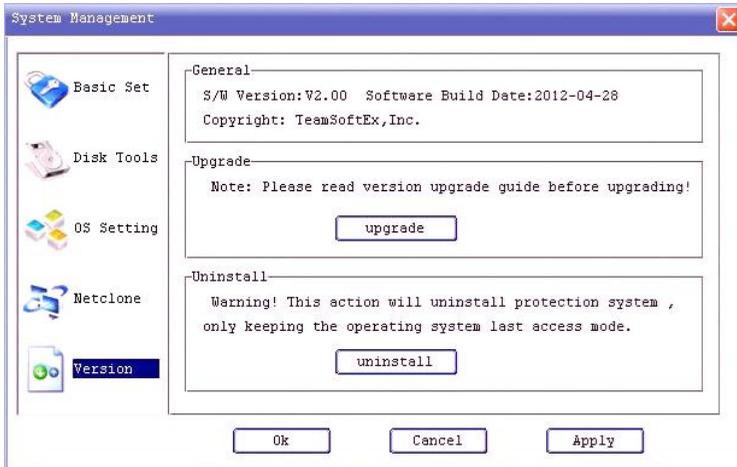
1. The receiving end should be set to the same workgroup assigned to the transmitting end.
2. No other workgroup name or any other workgroup has ever been used for login.

2、 Other Settings

Select NIC driver : If you select a wrong NIC during the Evosys driver installation, you can select the right one here.

6.3.9 Removing and Upgrading System

In the Evosys System Administration interface, select “Version” as shown in figure 6-15.



(Figure 6-15)

The current Evosys version, version upgrade and system removing function will display in this interface.



S/W version date issued : 2012-02-22 is the date of issue of the Evosys software version. Whether the upgrade is needed or not can be determined by service engineers.

1、 Starting Upgrade

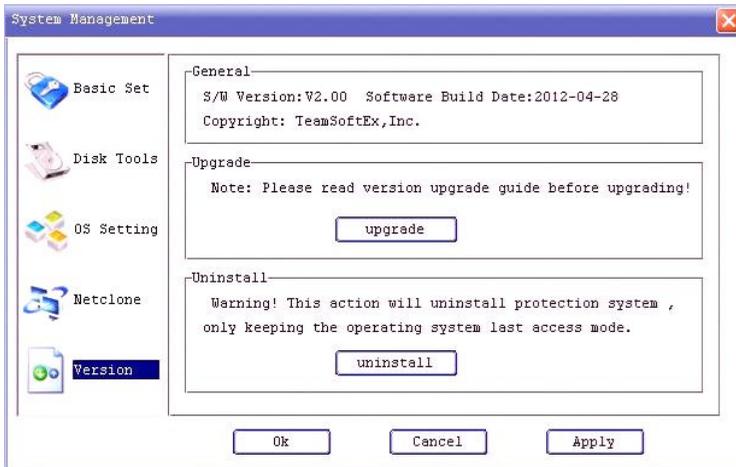
After inserting the Evosys firmware upgrade CD, click “Upgrade”. If this is successful, a prompt message will display. Click “OK” to restart the system.



Before the upgrade is taken, make sure of the current version, version date, and the date of the upgrade driver. After completing, the date of the upgrade driver will be successfully changed. If this date is not changed, upgrade it again or check the firmware upgrade CD version.

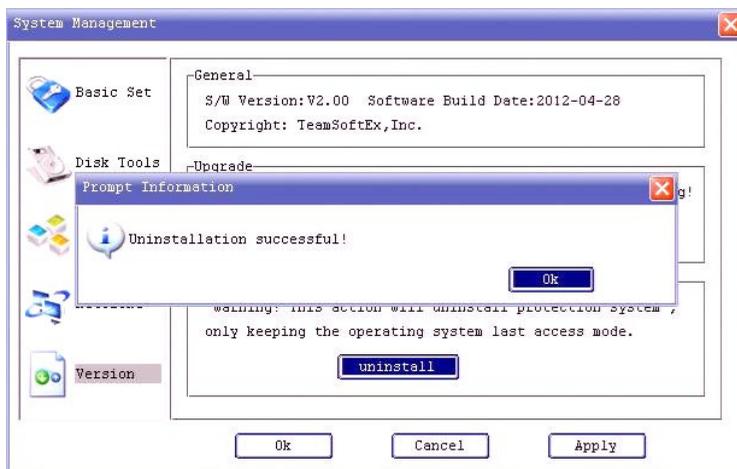
2、 Removing System

Click the “Upgrade” button. A dialog box will appear as shown in figure 6-16. Click OK to remove the driver programs.



(Figure 6-16)

After removal is completed, a prompt screen will appear as shown in figure 6-17.



(Figure 6-17)

After you click OK, the computer will restart, and Evosys will display the initial installation interface.



Attention

After removing the Evosys system, the computer will not obtain a protection and incremental copy from Evosys, consequently this system removing function should be used carefully ! Once the system is removed, the latest used OS will be reserved, but others will be deleted !

6.4 Tools

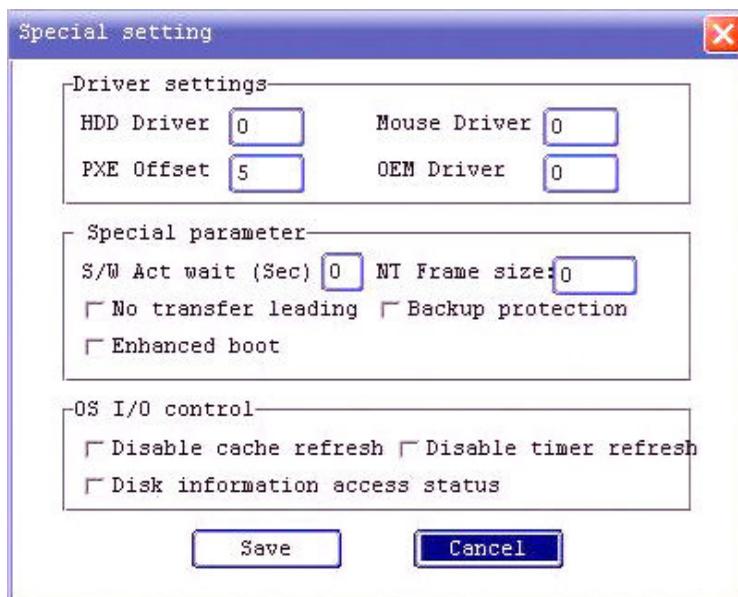
In “OS menu”, press F6 and enter the password. A Tools interface will appear as shown in figure 6-18.



(Figure 6-18)

6.4.1 Special Settings

In this special setting, some enhanced and compatible Evosys function settings are provided ! These could be changed under the supervision of experienced engineers (Figure 6-19).



(Figure 6-19)

6.4.1.1 Driver Setting

General users could not change these settings at any time.

6.4.1.2 Special Parameter Setting

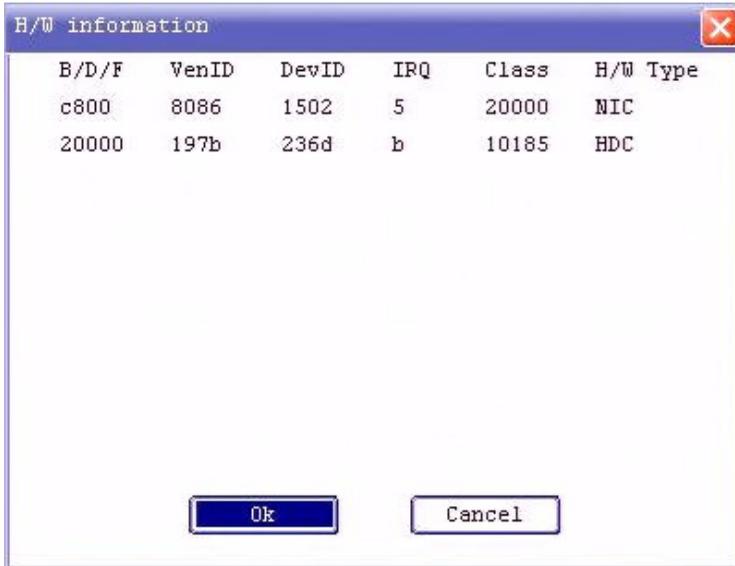
1. Network Frame Size : for mode 2 and mode 3 used in an unstable transmission (disconnection) situation, the size of the feedback frame can be adjusted to a value greater than 64 and suggested that it is close to a power of 2.
2. No transfer leading : The first 63 sectors on the disk are not used for transferring parameters.
3. (setting reserved) : No function provided at this moment.
4. Enhanced boot : For EVO not available for PS2 connector of keyboard. For more information, refer to Appendix 2.

6.4.1.3 Enabling OS I/O Control

1. **Disable timer refresh** : This option will disable Windows system to update disk cache at regular time (This is only for test purposes).
2. **Disable cache refresh** : Evosys driver will write cache data back to disk at regular time. If this option is disabled, data will be lost if the computer is not normally shut down (This is only for test purposes).
3. **Disk information access status** : This option is reserved.

6.4.2 Hardware Information

H/W information function is for examining resource messages about NIC cards and HDD controllers, and checking for any possible conflict occurring at the middle section. In general, the IRQ used for the NIC card and HDD should be different. As shown in figure 6-30 below, the IRQ for NIC card is “5”, and for HDD is an “b”.



The screenshot shows a dialog box titled "H/W information" with a close button in the top right corner. The dialog contains a table with the following data:

B/D/F	VenID	DevID	IRQ	Class	H/W Type
c800	8086	1502	5	20000	NIC
20000	197b	236d	b	10185	HDC

At the bottom of the dialog, there are two buttons: "Ok" and "Cancel".

(Figure 6-20)

6.4.3 Card Information

Card information is for examining the date of H/W manufacturing version and decipher serial number. This engineering password needs to be checked according to the combinational function keys at the time of startup.



(Figure 6-21)

6.4.4 Restoring MBR

This function is mainly used for restoring the MBR (Master Boot Record) of your HDD if you do not want to use the Evosys system in order to suppress the display of a message “Evosys driver not found”.

Appendix 1 Questions & Answers

1. After the computer passes the BIOS self test, it begins the Evosys startup procedure, and if the first installation interface does not appear, what can you do?

A : This installation wizard screen does not appear. In general, there are two procedures you can follow. The first step is to determine whether this prompt “**Press [Ctrl+H], Boot from restore card (xx/xx/2011)...**” appears. Refer to Situations I and II.

Situation I : This prompt message does not appear

- A. If card is not properly installed, you can...
 1. Check your card, and re-insert it.
 2. Change to another PCIE slot.
 3. Try using another card.
 4. Use administration mode to enter into OS to check whether this card can be found.
- B. If any problem occurs on CMOS setting, you can...
 1. Refer to CMOS Setting description about the startup sequence setting problem.
 2. Disable some settings if there is not enough ROM space. To take “Onboard LAN ROM” as an example, disable this USB Controller and some protection functions embedded in the motherboard, such as “HP Net clone rom” on an HP computer. The software protection used in DELL computers is “HDD Protection Function”, and it needs to be changed to a BIOS. As for an external display card, you can first remove it, and test whether a prompt Ctrl+H appears.

Situation II : This prompt message appears

1. Check whether the HDD is connected to a desired card, and whether the SATA cable is attached.
 2. The startup sequence setting problem: Evosys is directly connected to the HDD. In general, this HDD is set as a first startup device, and if more hard disk drives are used, these HDDs connected to Evosys should be set as first startup devices.
 3. The startup mode setting problem: Press F4 during startup to select a different mode. In general, there are two modes for you to determine the mode you are using. If three dots (...) appear and they are followed by a message **“Press [Ctrl+H], Boot from restore card (xx/xx/2011)”**, you are using mode 0, and if three stars are followed by this message, mode 1 is currently being used.
 4. Device startup based on device selection: To select Evosys startup, F12 is used for Lenovo Dell, and Acer computers; F9 for HP computers, F8 for ASUS, and so on.
2. For your first installation, how are drivers selected for the network card ?
- A: Evosys will automatically detect and select an NIC driver. Supported NIC cards are shown as follows:
1. None : This denotes that no driver will be loaded
 2. Intel Pro100: Intel Pro100 series NIC cards supported
 3. Via Rhine: Via Rhine series NIC cards supported
 4. Realtek 8139x: Realtek 8139 series NIC cards supported
 5. RTL Giga&PCI-E: Realtek Giga NIC cards (PCI & PCIE)
 6. Via VT62xx: VIA VT62 series Giga NIC cards supported
 7. BroadCom_1G: Old model Broadcom Giga NIC cards partially supported
 8. PXE Agent : Supports all embedded PXE NIC cards. When you want to start computer with this card, enable PXE ROM function in BIOS, and connect network cables.
 9. Marvell Yukon supports Marvell Yukon series NIC cards

10. Atheros L1 supports Atheros L1 NIC cards
 11. Atheros L2 supports Atheros L2 NIC cards
 12. Intel 1G Ndis supports all IntelGiga NIC cards
 13. Broadcom 1G Ndis supports all Broadcom Giga NIC cards
 14. Atheros L1E supports Atheros L1E NIC cards
 15. Marvell Ndis supports all Marvell Yokon series NIC cards
 16. Broadcom 440 Ndis supports Broadcom 440 series NIC cards
 17. PXE Agent2 supports all embedded NIC cards for PXE startup. In case of using this driver, enable PXE ROM function in BIOS, and connect network cables.
3. How many OS(s) and sectors can be supported by Evosys?
A : Evosys can currently support a maximum 16 OS(s) at the same time, and each of them can support at most 9 data sectors (including shared data disk), wherein 40 partitioned sections can be supported in total.
4. How do you setup buffers when setting up your partitions?
A : After setting up the partitions, a “Buffer” field will be automatically enabled. Its size is 1000MB by default, and it can be manually adjusted. In general, we suggest that the space for this buffer be 10~20% of corresponding partition capacity. It can be set according to the software being installed. We suggest that more than 2G of buffer is for Vista system. Evosys supports dynamic registers, which can be alternatively used if the static registers are used up.
5. When is the right time to install Evosys driver programs in a Windows environment?
A : After installing an OS, install H/W device drivers and applications, workgroup, IP, and more, and again install “Evosys Driver For Windows”. Once you complete installation, this system status is your basic system environment.

6. At the time of installing Evosys driver programs in Windows, prompt data partitions are not formatted and started. Are they in unprotected status?
A : Installing Evosys driver programs onto Windows should be done after installing the OS and formatting disk. Then restart your computer if you have done such an installation.

7. Do I need to install Evosys driver programs onto the OS if an OS is being installed onto non-instant recovery sectors?
A: You need to install driver programs if automatic AP setting ability is needed after copy.

8. After partitioning, can any computer be used as a transmitting end during the later maintenance phase?
A: Yes.

9. At the time of installing Vista and Windows7, what should I watch for?
A: Before installing the Windows system driver, please disable “User account control”, and change it to “Without notice” in order to prevent driver failure.

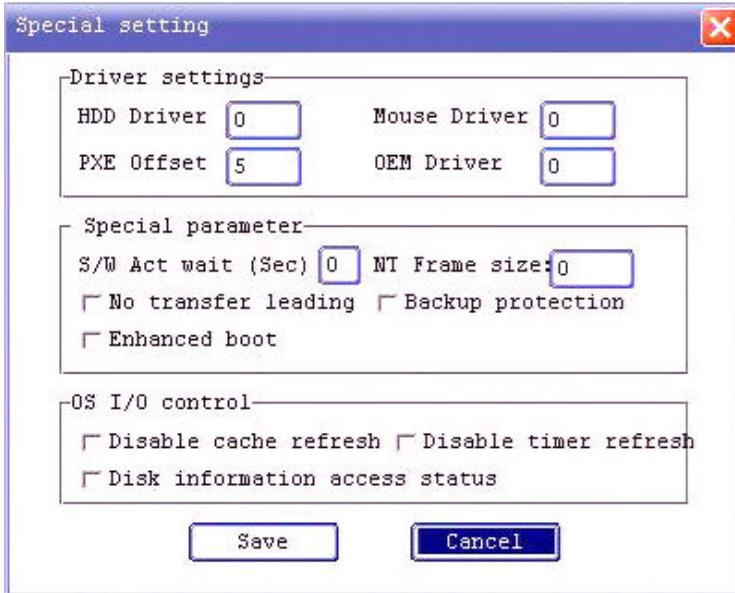
10. How to install Linux OS on Evosys
A: To install Linux onto Evosys, we suggest you install Kernel version 2.6.26 or above.

11. What are the rules I can follow to modify Evosys sector attributes? What should I pay attention to?
A :
 - I. A attribute sector can be changed to C/P/S attribute sector, and later changed back to A attribute from C/P/S attribute sector.

- II. B attribute sector can be changed to A/C/P/S attribute sector, and later changed back to B attribute sector from A/C/P/S attribute sector (Note : If B attribute sector is changed to other attribute, you can press Ctrl+B to recover them).
- III. C attribute sector can be changed to P/S/A attribute sector.
- IV. P attribute sector can be changed to C/S/A attribute sector.
- V. S attribute sector can be changed to P/C/A attribute sector.

Appendix 2 EVO not Supported for PS2 Keyboard

1. Press F6 in the startup menu interface shown on the transmitting end, select “Special Setting” and then tick “Enable enhanced startup”. After saving settings, select “Send” to send parameters to the receiving end.



2. Start all computers, ensure using the right OS, and all operations are completed !

Notes :

- * We suggest that you first upgrade one computer to a new version, and then ensure you have successfully completed these steps, and then start to do the dispatch for all computers.
- * OS should be properly run on all computers.