

# **INSTALLATION and CONFIGURATION GUIDE FOR COMPULINK ADVANTAGE SOFTWARE (Revised 02/22/2007)**

## **PRE-REQUISITES**

A Certified Network Professional, if not provided by Compulink, must install, be readily available and administer your network prior to, during and following your Compulink training. Installation and operability must include the following:

- Required and necessary Shared Resources active, i.e., Servers, network, scanners and printers.
- Workstations mapped and/or redirected to appropriate shared resources on the server.
- File and Print Sharing from all applicable stations must be functioning prior to the arrival of Compulink Trainers.

## **HARDWARE MINIMUM REQUIREMENTS**

### **SERVER**

- Intel Pentium 4 or higher (processor speed will vary based on availability and office needs)
- Hard Disk Drive (*Based on office needs, Contact IT support department for assistance.*)
- 512MB RAM (amount of RAM varies based on the number of workstations)
- Windows 2000/2003 Server - (Windows 2000 Pro. or XP Pro. for Small workgroups only )  
**(COMPULINK ADVANTAGE VERSION 8.0 IS NOT SUPPORTED IN WINDOWS 9X)**

### **WORKSTATION**

- Intel Pentium III or higher (processor speed will vary based on availability and office needs)
- Hard Disk Drive (size based on current market availability and office needs)
- 256MB RAM
- Windows 2000 Professional or XP Professional  
**(COMPULINK ADVANTAGE VERSION 8.0 IS NOT SUPPORTED IN WINDOWS 9X)**

### **SERVER & WORKSTATION**

- SVGA Display Adapter (capable of displaying 256 colors or more and DirectX support)
- 100mbps Ethernet Network Interface Card (NIC)
- Compatible Pointing Device
- Windows Keyboard\*
- CD-ROM Drive - (for sending small files and/or updates, a 1.44MB Floppy drive must be installed at one station)
- Most current operating system Critical Updates, patches and service packs

**NOTE: THESE ARE ONLY MINIMUM SYSTEM REQUIREMENTS FOR A SMALL WORKGROUP.** Enhancements to these requirements will boost performance depending on the number of workstations, overall system and network configuration. If in doubt, check with your IT consultant. Compulink IT support staff is also available to answer your IT questions. Contact Compulink IT support at (800) 888-8075.

### **WIDE AREA NETWORK (WAN): COMPULINK ADVANTAGE SOFTWARE REQUIRES MICROSOFT WINDOWS 2000/2003 SERVER WITH TERMINAL SERVER IN APPLICATION MODE. WINDOWS 2000 SERVER MUST HAVE SERVICE PACK 4 OR GREATER INSTALLED.**

WIDE AREA NETWORK SPECIFICS: Recommended bandwidth per user: 30 kbps (note: up to 50 kbps may be required if the TWAINWAN solution is implemented). The general memory recommendation for servers running terminal services is a minimum of 256 MB of RAM, plus an additional 25 MB of memory per client session. All sessions require a unique environment variable of CBS and CBSWAN.

Please refer to **WINDOWS TERMINAL SERVICES (WIDE AREA NETWORK)** in this guide.

Questions regarding Wide Area Networks should be directed to: Cole Galbraith, IT Department Manager at: (800) 888-8075 or "cole@compulink-software.com"

### **\*\*\*\*\* COMPUTER NAMES and SHARE NAMES \*\*\*\*\***

**SERVER NAMES** and **SHARE NAMES SHOULD NOT** contain spaces or hyphens (-), (i.e., Front Computer or Front-Computer). The proper naming would be, "FRONTCOMPUTER" or "FRONT\_COMPUTER".

## NETWORK OPERATING SYSTEMS

Compulink has proven compatibility with the following Network Operating Systems:

- **Windows 2003 Server (LAN/WAN) • Windows 2003 SBS (LAN ONLY) • Windows 2000 Server (LAN/CALL FOR WAN)**
  - **Windows XP Professional • Windows 2000 Professional**
- Compulink Advantage Software has been tested and is compatible with Windows Vista; however Compulink does not recommend an operating system until its first service pack is released. ONLY Windows Vista Business and Windows Vista Ultimate will supported by Compulink.
- Compulink Advantage Software has been tested and is compatible with Citrix Metaframe using Windows Server environments.
- Using Windows 2000 Professional and XP Professional Operating System is required on all workstations. Installation of Windows NT SERVER, Windows Millennium (ME) or Windows 98 is not supported on any workstations! Clients with pre-existing Windows XP Home Edition may use this Operating System as long as it is not used as the Acting Server and a domain environment.

**COMPULINK DOES NOT INSTALL, RECOMMEND OR SUPPORT ANY VERSIONS OF NOVELL NETWARE OR LINUX ON THE SERVER AND DOES NOT GUARANTEE COMPATIBILITY OR RELIABILITY WITH ANY OF OUR ADVANTAGE PRODUCTS.**

### WIRELESS OPTION

Compulink software has been tested and proven compatible with Wireless Tablet PCs using Windows XP Tablet PC Edition and the most common wireless access points. Wireless standard 802.11 a/g, usually advertised at transmission speed of 54 mbps, will transmit data at 22 to 24 mbps at best. The use of Windows Terminal Services is necessary and recommended with low bandwidth environments. For details regarding wireless networking and options contact Compulink IT department. Implementing a wireless Local Area Connection (LAN) should be limited ONLY to the environments where wired connectivity is not an option.

### CABLING

**Minimum of Category 5 or 5e Balanced 100  $\Omega$  cable and associated connecting hardware whose transmission characteristics are specified up to 100 MHz.** Compulink does not supply, install or contract with any network cable installers. It is necessary that a professional and capable cable installer install your network cable prior to the arrival of your computer systems and your Compulink Trainer.

### ELECTRICAL

Power fluctuation and outages are common; Compulink recommends the use of UPS (Uninterruptible Power Supply) on file servers and systems that store your data. Surge protectors are recommended for workstations.

### INSTALLATION OF ADVANTAGE SOFTWARE FROM CD-ROM (GENERAL)

Compulink Advantage Software for Windows can be installed using the ADD/REMOVE PROGRAMS utility in the Windows Control Panel or with the RUN Command. Run the "INSTALL.EXE" from the Advantage CD if the AUTO-RUN function fails. Compulink software will be installed in the C:\... by default. It is recommended that our clients designate an exclusive partition or directory for storing the Advantage software since the contents of its share will be available to all users with full control. Once the installation has completed, a shortcut will be created on the desktop to launch the Advantage software. Please see "Advantage software setup instruction" in this guide for details. **NOTE:** Advantage software does not edit the Windows registry and therefore its original installation folder can be moved without the need of the reinstallation from the original CD.

### DRIVE SHARING

In a Peer-to-Peer or client/server environment, one computer will act as the file server. This will be the computer where your Advantage software will be installed. The hard drive, partition or folder that contains the Advantage software in this machine will be shared with the others on the network with full access (Everyone, full control and System, full control). Do not share the folder that contains the Advantage files, i.e. EYECARE or EYEMD. Share only the root of the directory or partition where these folders reside. Multiple copies or copies saved on workstation local hard drives can possibly cause system errors.

### SHARED NAMES

**SHARED NAMES MUST NOT** contain spaces or hyphens (-), (i.e., NET DRIVE or NET-DRIVE). The proper naming would be, "NETDRIVE" or "NET\_DRIVE".

### **ENVIRONMENTAL SETTING (AKA SET Statement)**

The variable "X" represents a sequential alphabetical ID based on the number of Compulink licenses purchased (i.e., five licenses will allow you to use IDs ranging from A~E.) THE ENVIRONMENTAL VARIABLES MUST BE TYPED IN CAPITAL LETTERS AND WITH NO QUOTATION MARKS or SPACES. Should your network exceed 26 workstations/Licenses, use sequential double alpha IDs, beginning with AA for the 27<sup>th</sup> workstation, AB for the 28<sup>th</sup>, etc... It is important to assign the double alpha IDs in consecutive order with in the range "AA to RZ". Other variables such as location ID (CBSWAN=XXX) or department ID (DEPT=XXX) may also apply.

**PLEASE NOTE: IT IS VERY IMPORTANT THAT EACH WORKSTATION USES A UNIQUE ENVIRONMENTAL VARIABLE. SHARING ENVIRONMENTAL VARIABLES WILL CAUSE INTERRUPTION IN THE SOFTWARE OPERATION AND SERIOUS DATA CORRUPTION.**

### **ADVANTAGE SOFTWARE SETUP INSTRUCTIONS FOR WINDOWS 2000**

The software could be installed into a Directory by the name of "DATA". This directory can be created on any available local drive with sufficient space (using the boot partition is not recommended by Compulink) and shared as "NETDRIVE". NETDRIVE share must have full access/control for EVERYONE and SYSTEM. On all workstations, map a network drive to the NETDRIVE share using the UNC path \\SERVERNAME\NETDRIVE. Create a shortcut on each desktop, including the server, using this mapped drive to the product's executable. Windows 2000 will assign the next available drive letter to the mapped drive. Compulink recommends using "X" as the drive letter. PLEASE NOTE: Advantage software will not function properly if the shortcut path to the product executable is using a UNC (UNIVERSAL NAMING CONVENTION.) An example of a **wrong** shortcut path to the software would be: (\\SERVERNAME\NETDRIVE\EYECARE\EYECARE.EXE). **NOTE: BE SURE ALL STATIONS, INCLUDING ANY REMOTE SESSIONS USE A SPECIFIC DRIVE LETTER AND MAPPED DRIVE LETTERS DO NOT VARY.**

### **ENVIRONMENTAL SETTING (AKA SET Statement) Windows 2000**

Advantage software utilizes the Environmental Variables in the System Properties Window to set a unique environment/ID for each user accessing the software. These variables are also referred to as "SET STATEMENTS." To access the Environment Variables, navigate to the control panel, double click the system icon, choose the **Advanced** tab and click on the Environment Variable button. To add a Global **SET** statement, use the SYSTEM Variable (recommended on workstations only). Create a new variable using "CBS" as the Variable Name (without the quotation marks). For Variable Value type "X" (without the quotation marks). "X" represents a sequential alphabetical ID based on the number of Compulink licenses purchased (i.e., five licenses will allow you to use IDs ranging from A~E.) THESE VARIABLES MUST BE TYPED IN CAPITAL LETTERS. Should your network exceed 26 workstations, use sequential double alpha IDs, beginning with AA for the 27<sup>th</sup> workstation, AB for the 28<sup>th</sup>, etc... It is important to assign the double alpha IDs in consecutive order with in the range "AA to RZ". **PLEASE NOTE: IT IS VERY IMPORTANT THAT EACH WORKSTATION USES A UNIQUE SET STATEMENT. SHARING SET STATEMENTS WILL CAUSE INTERRUPTION IN THE SOFTWARE OPERATION AND DATA CORRUPTION.**

### **WIDE AREA NETWORK and WINDOWS TERMINAL SERVICES Configuration**

Accessing Advantage software from a remote location is only possible if Windows Remote Desktop Protocol (Terminal Services) is utilized. System Administrators must login as each individual user during the initial setup and set the environment for accessing the software using the server.

Adding the remote desktop users is similar to adding users to the LAN with the exception of environmental variables. Terminal Server session variables must be added using **USER VARIABLES ONLY**. A unique variable must be set for each session as well as the local area network. **DO NOT ADD A "CBS" VARIABLE TO THE SYSTEM VARIABLE OF THE SERVER.** Once each variable is set, in each user profile/session, map a network drive to the share where the Compulink software resides and create a shortcut on the remote user's desktop to launch the software. **ALWAYS USE A MAPPED DRIVE TO LAUNCH THE APPLICATION**, even on the server. It is recommended that all shortcuts have "read only" attributes so they do not resolve to the absolute root in case the network path and the mapped drive are temporarily unavailable.

If your office utilizes multiple location codes, use the **CBSWAN** variable name and the correct variable value assigned to each location by Compulink to set the location ID prior to the launch of the software. Setting this code is easy. If all terminal server users are from the same location, use the SYSTEM VARIABLE and set this variable globally. If the terminal server users use different locations codes, use the USER VARIABLE section for each user. (Example CBSWAN=001 for main location, and CBSWAN=002 for the remote location.) The **CBSMOBILE** variable has been created for clients with staff members that move between offices and locations. This variable will allow users to enter the correct location code prior to the full launch of the Advantage Software. When **CBSMOBILE=Y** is in the environmental settings, the software will prompt the user to enter the CBSWAN location code.

**REMOTE PRINTING:** All remote printers, including the Dymo label printers, must have an exact matching printer driver on the server and be registered as a known printer in the NTPRINT.INF file. Only printers created by the session will successfully print to Advantage Software. **PLEASE NOTE: IT IS VERY IMPORTANT THAT EACH WORKSTATION (remote sessions or local) USES A UNIQUE SET STATEMENT. SHARING SET STATEMENTS WILL CAUSE INTERRUPTION IN THE SOFTWARE OPERATION AND SERIOUS DATA CORRUPTION. For Domain Clients with roaming users, please contact IT department prior to setup.**

## **ADVANTAGE SOFTWARE SETUP INSTRUCTIONS FOR WINDOWS XP**

The software could be installed into a directory by the name of “**DATA**”. This folder can be created on any available local drive with sufficient space (using the boot partition is not recommended by Compulink) and shared as “**NETDRIVE**”. NETDRIVE share must have full access/control for EVERYONE and SYSTEM. On all workstations, map a network drive to the NETDRIVE share using the path \\SERVERNAME\NETDRIVE and create a shortcut on the workstation’s desktop using the mapped drive to the product’s executable. Windows XP will assign the next available drive letter to the mapped drive. Compulink recommends using “**X**” as the drive letter. PLEASE NOTE: Advantage software will not function properly if the path to the product executable is using a UNC (UNIVERSAL NAMING CONVENTION.) An example of a **wrong** shortcut path to the software would be: (\\SERVERNAME\NETDRIVE\EYECARE\EYECARE.EXE). **NOTE: BE SURE ALL STATIONS, INCLUDING ANY REMOTE SESSIONS USE A SPECIFIC DRIVE LETTER AND MAPPED DRIVE LETTERS DO NOT VARY.**

## **ENVIRONMENT SETTING (AKA SET Statement) Windows XP**

Advantage software utilizes the Environment Variables in the SYSTEM Properties to set a unique environment/ID for each user accessing the software. These variables are also referred to as “SET STATEMENTS.” To access the Environment Variables, navigate to the control panel, double click the system icon, choose the advanced tab and click on the Environment Variable button. To add a Global set statement, use the SYSTEM Variable (recommended on workstations only). Create a new variable using “CBS” as the Variable Name (without the quotation marks). For Variable Value type “X” (without the quotation marks). “X” represents a sequential alphabetical ID based on the number of Compulink licenses purchased (i.e., five licenses will allow you to use IDs ranging from A~E.) THE SET STATEMENT MUST BE TYPED IN CAPITAL LETTERS. Should your network exceed 26 workstations, use sequential double alpha IDs, beginning with AA for the 27<sup>th</sup> workstation, AB for the 28<sup>th</sup>, etc... It is important to assign the double alpha IDs in consecutive order with in the range “AA to RZ”.

DOS PRODUCT ONLY: The statement can also be added to the Batch File box found in the Properties Sheet of your Advantage software shortcut but it is recommended to use the Autoexec.bat file in most cases.

PLEASE NOTE: IT IS VERY IMPORTANT THAT EACH WORKSTATION USES A UNIQUE ENVIRONMENTAL VARIABLE. SHARING VARIABLES WILL CAUSE INTERRUPTION IN THE SOFTWARE OPERATION AND DATA CORRUPTION.

## **MISCELLANEOUS INFORMATION**

### **Backup Recommendation**

**HOW MUCH IS YOUR DATA WORTH?** Your Customer Care Team cannot stress enough the importance of performing daily backups. Many businesses fail to appreciate the importance of backing up vital data on a daily basis until it is too late. Valuable equipment is usually insured against fire, theft or other disasters. A current backup is the only insurance policy on your patient data. HIPAA Security Regulations dictate specific details as to how the electronic information used by the healthcare industry should be stored, transferred, and used to ensure the privacy of individually identifiable data related to a patient’s healthcare. Your backup is your first defense against the loss of patient data.

- **A FULL backup of Compulink's Advantage folder (i.e. EYEMD, EYECARE) must be performed daily. Differential or incremental backup methods cannot be restored successfully and will lead to loss of data.**
- CHECK THE BACKUP LOG OFTEN TO MAKE SURE YOUR DAILY BACKUP IS RUNNING ERROR FREE.
- IT IS IMPERATIVE THAT THE ADVANTAGE SOFTWARE IS NOT RUNNING WHILE THE BACKUP IS BEING PERFORMED.
- Hard Drive Redundancy (RAID 5) on the file server is recommended for data recovery.
- Copy the data to a secure local workstation’s hard drive or an external hard-drive daily. (Optional)

### **PRINTERS**

Compulink Advantage software utilizes printers that are properly setup in the Windows environment. Once printer drivers have been installed and the printer has been configured, a Test Page should be printed from within the Properties Sheet for that printer. If the Test Page has successfully completed, a test can be conducted from within your Advantage Software. Compulink software has been tested successfully and compatible with the HP LaserJet line. **WAN CLIENTS:** Not all printers are compatible with Terminal Server. Some all-in-one (multi-function) and USB printers are not compatible with Remote/Terminal Server. Please consult the printer manufacturer’s documentation. For generating labels, Advantage software has proven compatibility with **Dymo Labelwriter 400 Turbo** in a WAN environment.

**USERS AND GROUPS**

Whether you are using Windows built-in groups or a new group created by the administrator, users of Compulink Advantage Software must be granted Full Control/Access to the share where the application resides. If security is an issue, the network administrator can place restriction on all other shares on the network while still granting users Full Control to the Compulink Share.

**TWAIN DEVICES**

Compulink software utilizes TWAIN compliant peripherals to capture and transfer images/data to the patient’s demographics screen. In most cases, the peripherals with “DEVICE SPECIFIC” file or “.ds” extension located in Windows “TWAIN\_32” folder should allow Advantage software to acquire the image/data from the TWAIN source. Due to the number of peripherals available on the market today, it is impossible to guarantee which devices/peripherals will successfully work with Advantage software. Compulink recommends the use of peripherals that are tested and researched by our IT lab. A list of Compulink’s recommended peripherals is available on the IT web site at: <http://www.compulink-support.com/faq.htm#peripherals>

**\*\*\* IMPORTANT NOTES \*\*\***

- **IN ALL SERVER/WORKSTATION VERSIONS OF AVAILABLE ANTI-VIRUS PROGRAMS, DISABLE THE NETWORK SCAN OPTION. THE CONTENT OF THE LOCAL DRIVES ARE SCANNED AND PROTECTED AND ENABLING THE NETWORK DRIVE SCANNING WILL ONLY CAUSE PERFORMANCE ISSUES AND CREATE LAG TIME WITH ADVANTAGE THE SOFTWARE.**
- **When upgrading to Advantage 8.0 and higher, due to memory management issues with Windows 95 and 98, it is required that all clients use an NT operating system such as Windows 2000 Professional or Windows XP Professional with Internet Explorer Version 6.0 (or better) updated with all critical updates.**
- **When upgrading to Advantage 8.0 and higher, the image frame grabber must also be upgraded if Image Advantage add-on is in use. This interface requires a TWAIN compliant image board/frame grabber.**
- **To avoid possible data corruption, it is REQUIRED that the NTFS File Allocation Table be used on the server if any of the workstations are utilizing NTFS.**
- **EMC and NEIC requires an External Modem connected to 9 pin serial COM1 and/or COM2 Port**
- **Compulink does not recommend Windows Millennium (ME) for use as a Workstation or Server**
- **Compulink has experienced difficulties with Keytronics brand keyboards. If you encounter abnormal behavior related to keyboard input with your copy of Advantage Software, please consult with your systems supplier.**
- **BE SURE ALL STATIONS, INCLUDING ANY REMOTE SESSIONS USE A SPECIFIC DRIVE LETTER AND MAPPED DRIVE LETTERS DO NOT VARY.**

For additional information and troubleshooting during Compulink off hours, visit the IT support web site at:

<http://www.compulink-support.com>

As a guide to help insure a hassle free installation and operation, Compulink provides these instructions. The support staff is available to answer any questions and/or any issues not covered in this guide.

I have read and understood the entire Network Configuration Guide (5 pages) provided to me. A copy has been provided to my Network Professional. These instructions have been followed to the best of my knowledge and ability. I hereby release Compulink from any configurations implemented by this office other than what is stated here or recommended by Compulink:

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Account Number: \_\_\_\_\_

Client’s Signature: \_\_\_\_\_ Print Your Name \_\_\_\_\_

IT Professional’s Signature: \_\_\_\_\_ Print Your Name \_\_\_\_\_

\_\_\_\_\_ Initials