



MANIATECHNOLOGIE

Titan™ T8000 & HR8 Series **Automatic Optical Inspection Systems**



Installing...
Windows XP Professional
and
Titan Application Software

on the MICRODISC Computer
(Tyan Thunder I7520 Motherboard – w/ Dual Core Processors)

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Revision History

Revision	Description	Date
Revision A	Initial Release	June 30, 2006

System Requirements and Information

Supplied by Mania:

1. Windows XP Professional Software (*w/SP2*)
2. Windows XP License Agreement Number (*on front of Microdisc computer*)
3. Nero DVD Recording Software CD-ROM
4. Windows XP Automated System Recovery Disk – Floppy (Optional)

Supplied in Mania Documentation:

1. Titan Software CD-ROM (version 2.xx or later)
2. Titan Application Password

Supplied by Customer:

1. Network information – IP address, domain name, etc.
2. Anti Virus Software

Additional System Information needed for a Software Reload:

1. HostID Numbers
 - With Network: _____
 - Without Network: _____

Loading Windows XP Professional for Titan

1. Loading Windows XP Professional

This section of the procedure is for installing Windows XP Professional on the new Dual-Core Microdisc computer used on the Titan HR8 machines.

A. Prepare the System

Before reloading the Windows XP Professional Software, ensure you have a back up of the Titan configuration files.

1. Copy the following files and directories to a floppy disk.
 - a. **D:\aoihome\bin\gat2.cnf**
 - b. **D:\aoihome\data** directory (Contains both the \data\cal & \data\sys directories in addition to the Master Table of Contents <mtoc.txt> file if jobs were ever archived to a CD-ROM).
2. If there are jobs that need to be backed up, do so before reloading software.
3. Check the BIOS Settings
 - a. Turn system power on and press the **F2** key as soon as a display is visible. When the CMOS Setup window appears (after the SCSI BIOS Utility), use the **Right** arrow key to move to the **Advanced** section.
 - Scroll down to **Advanced Processor Options** and press **Enter**. Ensure that Hyper Threading Technology is **Disabled**
 - b. Use the **Right** arrow key to move to the **Boot** section and ensure the Boot order is...
 - CD-ROM Drive
 - +Removable Devices
 - +Hard Drive
 - c. Move to Exit and choose **Save & Exit Setup** to save the changes.
In the SAVE to CMOS and EXIT (Y/N)? window, type **Y** to continue
4. Disconnect the network cable from the back of the machine. This is a precaution against worms and viruses that can download into the computer before it is properly protected.

B. Starting Windows XP Setup (*The text based section*)

Note: *If the computer is powered off, insert the **Windows XP Professional CD** into the drive immediately after applying power.*

1. Apply power to (*or reboot*) the workstation.
 - a. Quickly insert the **Windows XP Professional CD-ROM** (*if not already done*)
2. Press the **Space Bar** (within 5 seconds) when you see the message **Press any key to boot from CD...** at the bottom of the screen (*right after the BIOS Preview Screen*).

Note: *The CD-ROM drive must be the 1st Boot device listed in the computer's BIOS in order to see the above message. If this is not set, see "CMOS Boot Settings..." in the previous section.*

3. The **Windows Setup** will boot up to the **Welcome to Setup** blue screen after loading some default files and drivers.
 - a. Press **Enter** to Set Up Windows XP Now.
4. At the *License Agreement* Screen, press **F8** to accept the agreement.
 - a. If asked if you want to Repair the installation, press **ESC** to continue installing a fresh copy of Windows XP. (Unless you really want to try a Repair operation.)
5. Setup will display the current configuration of disk partitions. You should see something like the following on an 73GB disk...

70002 MB Disk 0 at ID 0 on Bus 0 on adpu320 [MBR]			
C:	Partition1 [NTFS]	6001 MB	(2415 MB free)
D:	Partition2 (Titan) [NTFS]	64001 MB	(54868 MB free)

Note: We will create 2 partitions on the 400GB Disk – a 20GB and a 350GB partition. The 20GB partition will be created now (for Windows XP) and the 350GB partition will be created later for the Titan software. If the disk was previously partitioned, as shown above, we will delete the partitions and rebuild them from scratch.

6. At the Partition screen, use the \uparrow or \downarrow arrows to select the **C: Partition**.
 - a. Press **D** to delete the partition.
 - Press **Enter** to confirm deleting a System partition.
 - Press **L** to really delete the partition.
 - b. The C: drive will change to

Unpartitioned space	6001 MB
---------------------	---------

Note: The disk and partition sizes shown in this procedure will most likely be a little different from the numbers you are seeing as parts change from time to time. For example, we are currently shipping these systems with 400GB disks. Older systems had an 73GB disk. However, the procedure is correct. Whenever you are asked to enter a specific number, just enter that number. The left over sizes may be different but, they will work fine.

7. At the Partition screen, use the \uparrow or \downarrow arrows to select the top **D:** partition.
 - a. Press **D** to delete the partition.
 - Press **L** to really delete the partition.
 - b. The drive will change to...

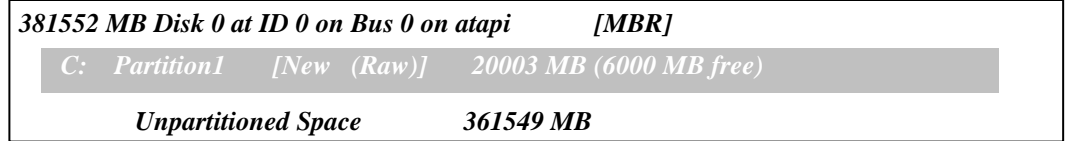
Unpartitioned space	72002 MB
---------------------	----------

8. Before continuing, the 400GB disk should have no partitions and resemble the following on the screen:

381552 MB Disk 0 at ID 0 on Bus 0 on atapi [MBR]	
Unpartitioned Space	381552 MB

9. Create the new C: partition as follows:
 - a. Press C to Create a partition...
 - b. Press the Backspace key to clear the field and enter **20000**

- Press **Enter** to Create.
- Display should show:

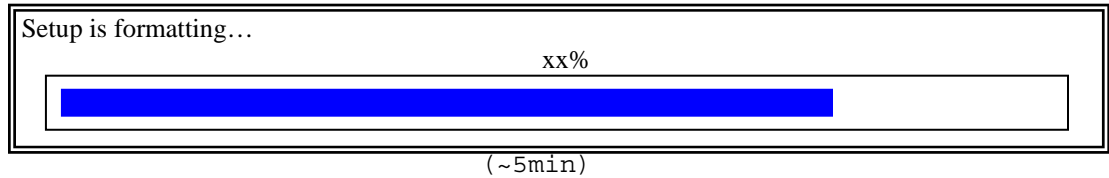


- c. Press **Enter** to install Windows XP on the highlighted partition.

10. Ensure, Format the Partition using the NTFS File System is selected and press **Enter**.

➔ The screen should display...

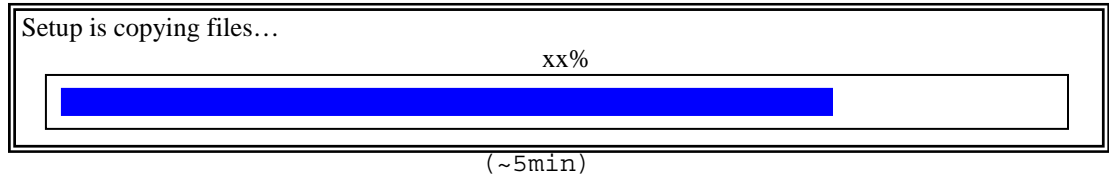
```
Please wait while setup formats the Partition
C: Partition1 [New (Raw)] 20003 MB ( 20002 MB Free)
on 381552 MB Disk 0 at ID 0 on Bus 0 on atapi [MBR].
```



11. When formatting is complete, Setup copies files to the Windows XP installation folder.

➔ Then, the screen will display...

```
Please wait while setup copies files
to the Windows installation folders.
This might take several minutes to complete.
```



12. When copying is complete, you can press **Enter** to reboot (or the system will boot itself after 15 seconds).

Note: This time, *DO NOT* press the *SPACE* bar to boot from CD when the prompt occurs.

C. Finishing Windows XP Setup (The Windows based section) After Reboot...

1. You will see the **Windows XP Installation** window.
 - a. Messages and Information will be displayed on the screen throughout the installation process.
 - b. Setup prepares to install windows by detecting and installing devices. (~ 5 minutes)
 - c. The screen may flicker off and on during this time.

2. At the Regional and Language Options window, click **Next>**.
3. At the **Personalize Your Software** window, enter “.” for the Name and **Mania Technologie** for Organization. Press **Next>**.
4. At the **Your Product Key** window, enter the 25 character *Product Key*: number located on the inside of the MDI computer’s front cover. Then press **Next>**.

Note: *It is recommended that you record the Product Key number for future reference - In case it accidentally gets lost.*

Product

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5. In the Computer Name and Administrator Password window, enter:
 - Computer name: **TitanHR8-xxxx** (Where xxxx is the serial number of the machine)
 - Administrator Password: **mania**
 - Confirm Password: **mania**
 - Click on **Next>**
6. In the **Date and Time Settings** window, set as needed and click on **Next>**.
7. In the **Networking Settings** window, select...
 - Ⓐ **Typical Settings**Click on **Next>**
8. In the Workgroup or Computer Domain window, select...
 - Ⓐ **No, this computer is not on a network...**And leave the Workgroup name – **WORKGROUP**. Click on **Next>**
9. Setup Installs Windows and Finalizes the Installation. (~ 8 minutes)
10. When done, the system will reboot.
 - a. At the *Display Settings* popup window, click **OK** to allow windows to automatically set the screen resolution.
 - b. Click **OK** in the Monitor Settings popup window (if you can read the message).
11. At the Welcome to Microsoft Windows screen, click on **Next→**
 - a. At the **Help Protect your PC** window, select:
 - Ⓐ **Not right now**And click on **Next→**

- b. At the **Who will use this computer?** window, type: **Aoi** in the *Your name:* box and click on **Next**➔
 - c. At the **Thank You!** screen, click on **Finish**➔
 - d. Remove the **Windows XP Professional** CD-ROM.
12. The system will automatically log on to Windows as an **Aoi** user with administrator privileges. We will now change the normal logon method for the Aoi. At the **AOI** window that appears, click on **Control Panel**. Or, if the window is not there, click on the **Start** button to display it.
- a. Under **Pick a Category**, click on Add or Remove Programs.
 - Click on **Add/Remove Windows Components** on the left border.
 - In the **Windows Components** window, scroll down the list and uncheck
 - Windows Messenger*
 - Outlook Express*...then click **Next**>.
 - Click **Finish** when done. Then **Close** the *Add or Remove Programs* window.
 - b. Back under **Pick a Category**, click on User Accounts.
 - c. Under **Pick a Task...**, click on ➔Change the way Users log on and off. Uncheck *Use the Welcome Screen...* and click on the **Apply Options** button.
 - d. Back in the *User Accounts* window, under... **or pick an account to change**, click on the **Aoi** account – then, ➔**Create a Password**.
 - Enter the new password **mania1** in the 2 password fields.
 - In the *Password Hint* box, type **New Mania Default**.
 - Click on the **Create Password** button.
 - e. In the window that asks, Do you want to make your files and folders private?... click No.
 - f. **Close** the *User Accounts* window and the *Control Panel*.

2. Configure the XP Desktop for Titan

This is the way all Titan systems are shipped. It is strongly recommended that all systems be set up the same way when they are reloaded in the field.

A. Desktop Settings

1. Right click on the  button and select **Properties**.
 - a. Under the *Start Menu* Tab, select...
 - ⊙ *Classic Start menu*And click on **Customize...**
 - b. Select the following additional options:
 - Display Administrative Tools*
 - Show Small Icons in Start menu*And click on **OK**
 - c. Under the *Taskbar* Tab, select...


- Auto-hide the taskbar &*
- Show Quick Launch*

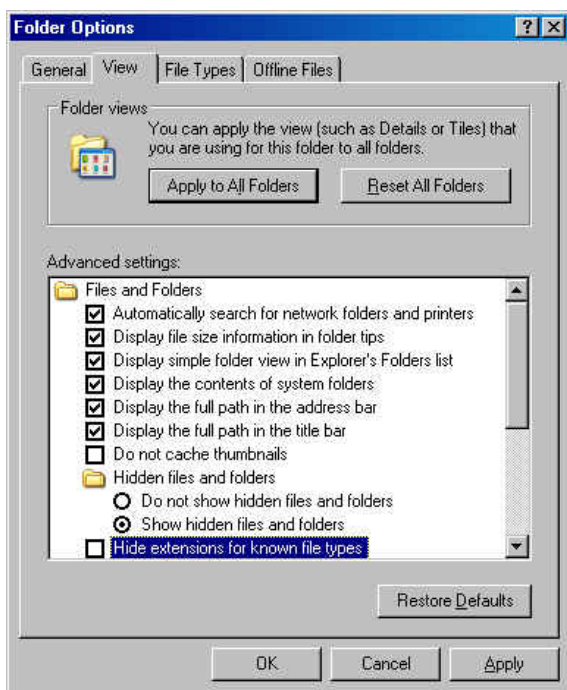
and uncheck the

- Hide inactive icons*

Then, click on **OK**.

B. Windows Explorer

1. **Right** click on the  button and select **Explore**.
 - a. Open the **C:\Windows** folder and click on **Show the contents of this folder** to see the list of files.
 - b. Right click on the **explorer** icon (*the one with the folder and the magnifying glass*) and select **Create Shortcut**.
 - c. Drag the Shortcut over to the Desktop and **Close** the Explorer window.
 - d. Rename the Shortcut - **Explorer** – and double click on it to open it.
 - e. Select the Windows directory and click on **View > Details**.
 - f. Click on **Tools** and select **Folder Options...**

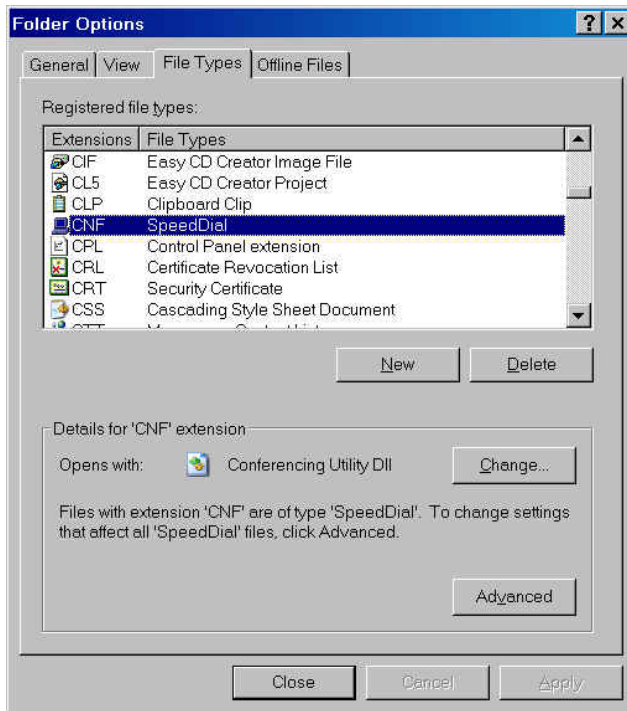


- g. In the *Tasks* section, select:
 - Use Windows Classic Folders**
 and click **Apply**.
- h. Click on the **View** tab and set up the **Advanced Settings** as shown in the figures to the left. (*The settings out of view in the top picture are shown in the bottom picture*)
- i. When done, click on the **Apply**.
- j. Click on the **Apply to All Folders** button to set these settings for everything.
- k. Click **Yes** in the informational popup.

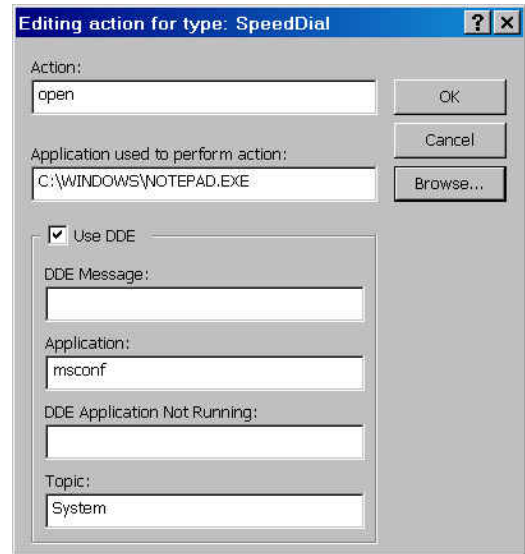
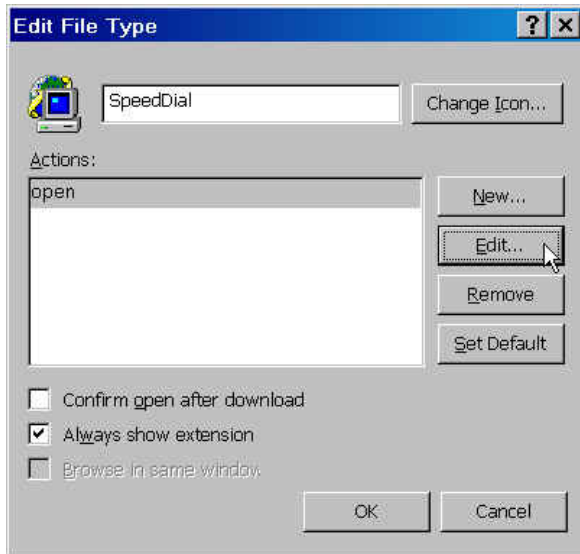


Note: Individual folders can be set back to the Large Icons (such as the Control Panel) if desired, by clicking on **View** in the Explorer window and selecting **Icons**.

2. Click on the **File Types** Tab in the Folder Options window.



- a. Scroll down to the **CNF** extension and select it as shown to the left.
- f. Click on the **Advanced** button to see the window shown below on the left.
- g. Check the...
 Always show extension checkbox and press the **Edit...** button. The window appears as shown below – right.



- b. Click on the **Browse...** button and navigate to the **C:\Windows** directory.
- c. Select the file **NOTEPAD.EXE** and click **Open**. The window should resemble the one above - right. Click **OK**.
- d. Click **OK** in the *Edit File Type* window.
- e. Click **Close** in the Folder Options window and **Close** the Windows Explorer.

C. Display Settings

1. Right click in the Desktop area and select **Properties**.
 - a. Under the **Screen Saver** Tab, select **(None)** and click **Apply**.
(The screen saver causes problems with the Titan Live Video)
 - b. Click on the **Power...** button (*at the bottom of the Screen Saver window*) and select the Power Scheme of **Always On**.
 - c. Under the *Settings...* section, set the *Turn off monitor* setting to **Never** and click **OK**.
 - d. Under the **Appearance** Tab, select...
Windows and buttons: Windows Classic Style
Color Scheme: Windows Classic
and click **Apply**.
 - e. Click on the **Effects...** button. In the popup, uncheck the
 Use the following transition effect... box and click **OK**.
 - f. Under the **Settings** Tab, select...
Screen resolution: 1600x1200 pixels
Color Quality: Medium (16 Bit)
 - g. Click on the **Advanced** button.
 - Under the **General** Tab, select **Large Size (120DPI)** in the *DPI Setting:* window
 - Click **OK** in the **Change DPI Setting** informational window.
 - Click **OK** in the **Default Monitor and Matrox Orion AGP** Window (The screen will go blank for a couple of seconds)
 - h. In the Monitor Settings pop-up, answer **Yes** to keep these settings. (If you don't answer Yes within 15 seconds, the display reverts back to the old settings)
 - Click **Yes** in the General pop-up window to use the existing fonts found on the system.
 - i. Then, click **Close** in the **Display Properties** window.
 - Click **Yes** to restart your computer before the new settings will take effect.
 - j. Wait for the system to reboot. Login as Aoi (*password = mania1*).

3. Format the Titan Partition on the MicroDisc computer

A. Change the CD-ROM drive letters and Create the TITAN Partition.

1. Right click on **My Computer** and select **Manage**.
(*Resize the window if necessary*)
2. Click on **Disk Management** in the tree pane.
3. Right click the mouse on the **CD-ROM 0** button (at the bottom left side of the window) and select: **Change Drive Letter and Paths...**
 - a. In the Change Drive Letter and Paths for D: () window, click on the Change... button.
 - b. Assign a Drive Letter **E:** and click **OK**.
 - c. Click **Yes** at the Confirm window.

4. Right click the mouse in the *Unallocated Disk Space* in DISK 0 and select **New Partition...**
(This should be ~353 GB's for a 400GB disk)
5. At the Welcome to the New Partition Wizard window, click Next>
 - a. At the **Select Partition Type** window, select:
 - Ⓒ **Primary Partition**
 Then click **Next>**
 - b. At the **Specify Partition Size** window, just click **Next>** to use all the available disk space.
 - c. In the Assign Drive Letter or Path window, ensure:
 - Ⓒ **Assign a Drive Letter D:**
 ...is selected and click **Next>**
 - d. In the **Format Partition** window, select:
 - Ⓒ **Format this partition with the following settings:**

File System: **NTFS**


Allocation Unit Size: **Default**

Volume Label: **Titan**

 Put a Check in the **Perform a Quick Format** box and click on **Next>**
 - e. In the **Completing the Create Partition Wizard** window, check that the settings are correct as follows:

Partition Type: Primary Partition
Disks Selected: Disk 0
Volume Size: 14496 MB
Drive Letter or Path: D:
File System: NTFS
Allocation Unit Size: Default
Volume Label: Titan
Quick Format: Yes
Enable File and Folder Compression: No
 - f. If the settings are correct, click on **Finish**. (~15 seconds)

B. Set the Virtual Memory

1. Click on the  button and select **Settings** then, **Control Panel**.
 - a. In the Control Panel window, click on **View > Icons** to display the large icons.
(if desired)
2. Double click on the **System** icon.
3. On the System Properties window, select the **Automatic Updates** Tab. Select,
 - Ⓒ **Notify me... and click Apply.**

Note: *Automatic Updates are turned off so they do not interfere with the normal Titan operations – such as ripping data files and scanning boards.*

If the Titan computer will be connected to the Internet, the operator will need to remember to download the updates when time permits.

4. Still in the **System Properties** window, click on the **Advanced** Tab.
 - a. Under the *Startup and Recovery* area, press **Settings**.
Change the **Time to Display list of Operating Systems** to **5** seconds and press **OK**.
 - b. At the bottom of the **Advanced** Tab, click on the **Error Reporting** button. Select...
 - ⊙ **Disable Error Reporting**And click **OK**. (*This gets rid of the “Send to Microsoft...” windows when an error occurs.*)
5. Under the *Performance* area, press **Settings...** Under the **Visual Effects** Tab, select
 - ⊙ **Adjust for best performance**And click **OK**.

Note: *It is no longer necessary to set up Virtual Memory on the computer. With 4GB's of RAM, the default settings are now, Initial Size = 2046MB and Max Size = 4092MB.*

6. **Close** the Control Panel and click **OK** in the *System Properties* window.

4. Installing the Device Drivers for Titan

A. Network Settings

1. Load drivers for Dual Core Microdisc computer as follows.
 - a. Place the Titan CD-ROM into the drive.
 - b. The first time a CD is inserted in a newly loaded system, the *What do you want windows to do...?* window appears. Select, **Take No Action** from the list and check the **Always do...** box .Then, click **OK**.
 - c. Right click on **My Computer** and select **Manage**.
 - d. Click on the **Device manager** in the left tree pane.
 - e. Under **Other Devices**, double click on the top yellow **Ethernet Controller** device.
 - f. Click on the **Reinstall Driver...** button.
 - g. When the Welcome to the Hardware Update Wizard window appears, select...
 - ⊙ No, not this time and click Next>.
 - h. With “install the software automatically (Recommended)” selected, click **Next>** again.
 - i. When the **Intel(R) PRO/1000 MT Dual Port Server Adapter** is found, click **Finish**.
 - j. Close the **PRO/1000...** Properties window.
 - k. Repeat from step “e.” for the other port.
 - l. Close the Network Properties window and the Computer Management window.
2. Right Click on *My Network Places* and select **Properties**. Right click on the *Local Area Connection* Icon and select **Properties**.

The connection should show:

Connect Using:

Intel (R) PRO/1000 MT Dual Port Server

3. By default, the network settings are set to use DHCP. If this is ok, go on to step 4. If the customer needs a fixed IP address, (*and supplies the number*) enter it as follows:
 - a. Select **Internet Protocol (TCP/IP)** and click **Properties**. Set a fixed IP address as shown below:

Select:

Use the following IP Address

IP address: 129.1.15.1 (or the customer supplied address)

Subnet Mask: 255.255.0.0 (or the default Mask)

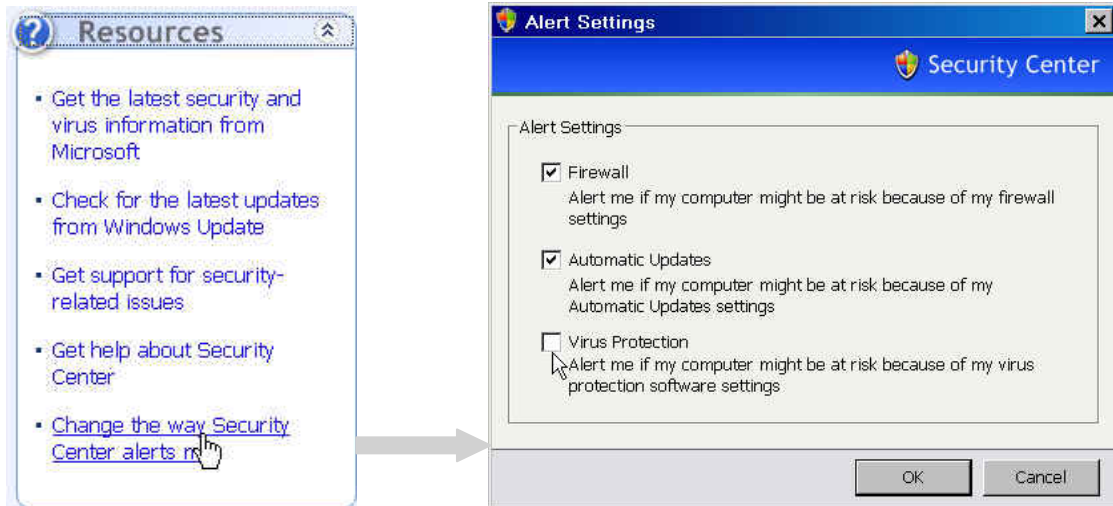
Click **OK** when done
4. Check the **Show icon in notification area when connected** box and click **OK** in the *Local Area Connection Properties* and *Network Connections* windows.
5. **Close** the Network Connections window.

B. Load the Falcon card drivers

1. Insert the **IDS Falcon** CD in the **E:** Drive.
2. At the Welcome screen, click **Next**.
3. At the License window, Click **I AGREE** to accept.
4. Choose the default destination:
C:\Program Files\Matrox Imaging
and click **Next>**
5. Click **Finish** to Continue and still use defaults for the rest of the prompts.

C. Load the Nero DVD Writer Software

1. Insert the Nero Software CD into the drive.
2. When the Nero window is displayed, click on **Install Nero Install Suite**. Then click on Install Suite to load the software.
 - a. Click **Next>** in the *Welcome* window...
Choose **I accept...** at the License Agreement and click **Next>**.
Click **Install** at the *Customer Info* window...
Next> in the *Select File Types* window...
 - b. When the files have been loaded, click **Exit** in the last 2 windows.
3. Now, to get rid of that annoying little notification that your system might not be safe -- every time you log in, click on the little red shield in the Task Bar to open the **Security Center** window. Move the mouse to the Resources area on the left side of the window and click on *Change the way Security Center alerts me...* as shown below.



4. At the Alert Settings window that appears, remove the ✓ check next to **Virus Protection** and click **OK**. Close the **Security Center** window.

***Note:** Anti Virus software (although not included) is recommended for the Titan computer – especially if it will be connected to the internet. All machines are loaded with the latest High Priority updates and scanned with the latest Norton Anti-virus software at the factory. Then, the Norton software is removed before shipment.*

Loading Titan Applications

1. Load the Titan Application Software

This section of the procedure is for installing a fresh copy of the Titan software (version 5.xx or higher) after reloading the WindowsXP Operating System. It is recommended that you install the latest Titan software at this time – currently version 7.00a.

If you are only updating the Titan software, do not use this procedure; use the *Titan Software Upgrade Procedure_RevX.pdf* that is on the Titan CD-ROM

A. Copy the installation software to the D:\ drive.

1. Create a directory on the **D:** drive called **Titan Installation Files** as follows...
 - a. Use the Windows Explorer to select the **D:** drive. Right click in the contents window and select **New > Folder** from the pop-up menu. Enter the new folder name - **Titan Installation Files**.
2. Place the Titan CD-ROM in the CD-ROM drive. Currently, the latest released version is 7.00a.
3. Copy the **Titan Version 2.xx** directory from the CD to the **Titan Installation Files** directory on the **D:** drive. (Where **2.xx** refers to the software version being installed).
 - a. Again, using Explorer, select the CD-ROM (**E:**) drive. Click and drag the **Titan Version 7.xx** directory from the **E:** drive to the **D:\Titan Installation Files** directory.

Note: All of the Titan software is loaded from the **D:** drive. Never directly from the CD-ROM.

B. Install the Titan Software for the First Time

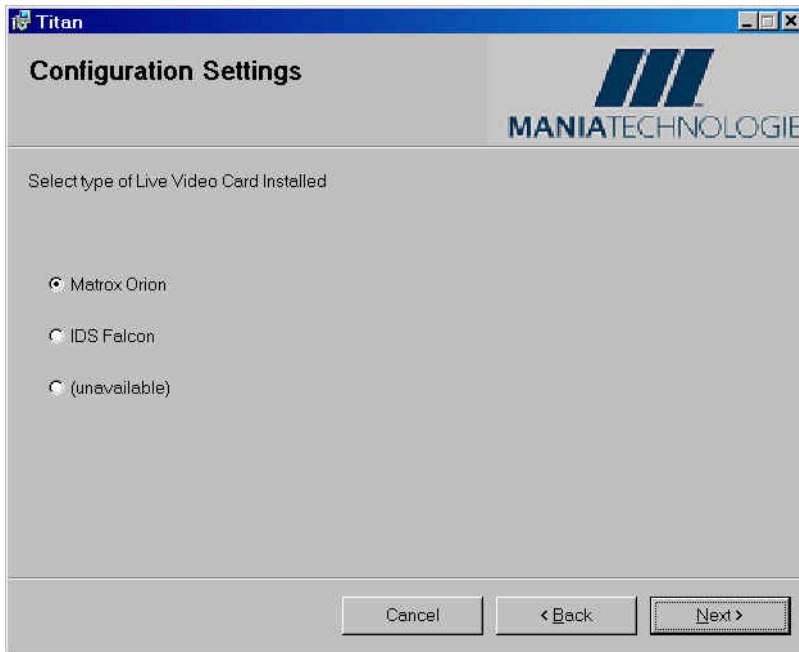
1. From Windows Explorer, go to the **D:\ Titan Installation Files\Titan Version X.xx** directory and double click on **Setup.exe**. The installation application will guide you through the remainder of the installation procedure.
 - a. At the *Welcome to Titan Setup Wizard* window, click **Next>**.
 - b. At the *License Agreement* window, select **I Agree** and click **Next>**.
 - c. At the *Select Components* window, ensure **Titan** and **Dpf2cad** are both selected and click **Next>**.

- At the *Scanner Camera Type* window, select the **camera type** that matches your Titan hardware. The two choices are described below:



Scanner Camera Types:

- Dalsa Spyder 1 (Original)** - These are the normal blue cameras that we have been using for the last 5 years – also known as Spyder 1 cameras.
 - Spyder 2 Camera Link Interface** - These are the black cameras. They are a little shorter than the blue (Spyder 1) cameras and have heat sync fins on the front and back.
- Click on your choice and click **Next>**.
 - At the *Configuration Settings* window, select the Video card used and click **Next>**.



Configuration Settings:

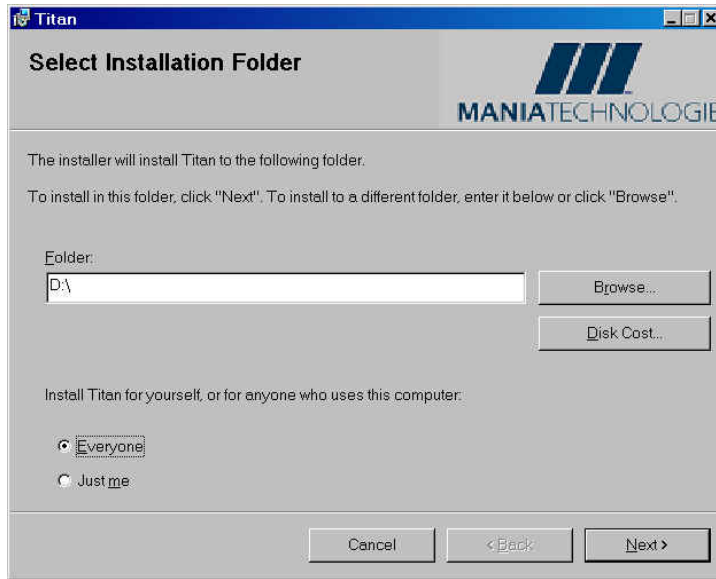
The current Titan computers are all using the Matrox Orion card. This computer has a full front cover that hides the CD-ROM and floppy drives.

However, we are testing a new Microdisc computer with Dual-Core processors that will be using the IDS Falcon card.

The new Dual-Core Microdisc can be identified by the half-height front fan cover that is held in place with 2 silver thumb screws.

Note: Video card selection is only required for the proper configuration of the Titan software. This software does not install the Video card drivers.

5. At the *Select Installation Folder* window, leave the default **D:** and select **Everyone** as shown below:



6. When done, click **Next>**.
7. At the *Confirm Installation* window, click **Next>** to start the installation.
8. At the *Installation Complete* window, click on the **Close** button to exit.
9. **Before Re-Starting the system...** Move the Restart Popup window out of the way and click **OK** in the popup window behind it. It should display the following:

- **DllRegisterServer for VRAC2.dll Succeeded**

Note: *Don't worry if the above step fails. It can always be performed manually later by navigating to the **D:\aoihome\bin** directory and double clicking on the **rereg.exe** file. This should be done before starting Titan in order to register the new DLL file in the registry. Failure to run the **rereg.exe** file first will result in either an **MFC Runtime Error** or a **Visual C++ Runtime Error** when starting Titan (or the Test Suite) software.*

10. **Close** the Explorer window and click **Yes** in the popup window to Restart the computer.
 11. Login as **Aoi** and ensure that Dpf2Cad starts.
 - a. **Close** the Dpf2Cad window.
 - ➔ If the **DllRegisterServer for VRAC2.dll Failed** back in step 9, rerun it here. Go to the **D:\aoihome\bin** directory and double click on the **rereg.exe** file.
- Ensure that you get the **DllRegisterServer in D:\aoihome\bin\Vrac2.dll Succeeded** message.
12. Copy all the files from the Documentation directory of the Titan CD-ROM to **D:\aoihome\Docs**. Then, remove the Titan CD-ROM from the drive and store in a safe place.

Note: *The servos may not home or initialize until the drivers are loaded as described below.*

C. Load the new Titan PC Board Drivers

Note: Software version 7.00a (and higher) includes the INF files for all of the Titan PC Board drivers.

➔ **If the Found New Hardware Wizard window appears, go to Step 1 below to load the new drivers...**

➔ **If the Found New Hardware Wizard window does not appear, go to step 2 on the following page to load the new drivers...**

1. At the Found New Hardware Wizard window, (or, the Welcome to the Hardware Update Wizard window) select:

No, not this time

And click on **Next**>

a. In the following window, ensure...

Install the software automatically (Recommended)

is selected and click on **Next**>

b. At the <**Driver Name**> ...has not passed windows logo testing window, click on **Continue Anyway**.

c. The following is a list of the possible Driver names you will see – depending on your system.

___ **VRAC2 PCI 9052 RDK-LITE Board** (for the 1st VRAC2 board – if installed)

___ **VRAC2 PCI 9052 RDK-LITE Board** (for the 2nd VRAC2 board – if installed)

___ **GAT22/24 PCI 9050/9052 Board** (for the Gat-22/24 board)

___ **GAT20 PCI 9054 Board** (for the 1st Gat-20 board)

___ **GAT20 PCI 9054 Board** (for the 2nd Gat-20 board – if installed)

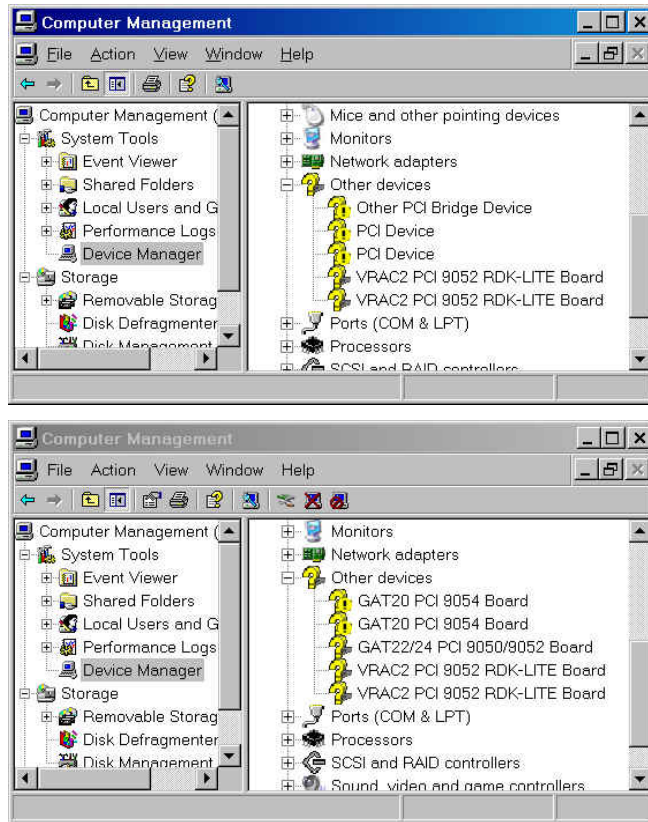
Note: When installing the Gat20 drivers, (shown as **PCI Device** below) you will be asked to reboot the system. We will not reboot until all of the drivers have been loaded.

d. At the *Completing the Found New Hardware Wizard* window, check the driver name above and click **Finish**.

e. If the next *Found New Hardware Wizard* window reappears, repeat this step – until no more windows appear.

2. Open the Device Manager window and install the rest of the drivers as follows...

- Right click on **My Computer** and select **Manage** from the drop-down window. Then, click on **Device Manager** in the left half of the window (as shown below).



- If the display shows any devices (under Other Options) without a real name, (such as *PCI Device* or *Other PCI Bridge Device* – as shown in the figure to the left), double click on one of these devices.
- In the popup window that appears, click on the **Reinstall Driver...** button.
- When the *Welcome to the Hardware Update Wizard* window appears, continue with step 1 (on the previous page).
- Repeat this until all of the devices are named properly in the device Manager – as shown in the bottom left figure.

3. After installing all the drivers for the above boards, **Close** all the windows and click **Yes** in the *System Settings Change* popup window to Restart the computer.
4. This concludes the Titan PC Board Driver installation.
5. Login as **Aoi** and ensure that Dpf2Cad starts. The gat24viper.exe will start to home and lock the servos – if, the power is applied to the table.

D. Load the Titan Support Programs

1. Set the Mania Background picture as follows.
 - a. Ensure that the Titan CD is still in the CD-ROM drive. Open Windows Explorer and select the **E:** drive.
 - b. Copy the **mania1024x768.jpg** file to D:\aoihome.
 - c. Right click the mouse in the Desktop area.
 - d. **Close** the Windows Picture and Fax Viewer window.
2. Copy the user documentation as follows:
 - a. Select the **E:\Documentation** directory in the Windows Explorer. Copy all files to the **D:\aoihome\docs** directory.
3. Load the Acrobat Reader as follows:
 - a. Point to **E:\Acrobat** in the Windows Explorer window and double click on **adbeRdr707_US.exe**.
 - b. Choose the default settings for everything.

4. To load the WinZip Software, go to the **E:\WinZip** directory and double click on **Winzip81.exe**. (or, **Winzip80.exe** – depending on your Titan version CD)
 - a. At the *WinZip 8.1 Setup* pop-up window, click **Setup**. Use the Default settings to load files. Destination Folder: **C:\Program Files\WinZip...** **OK**
Continue... **Next>**.
License Agreement... **Yes**.
WinZip Quick Start... **Next>**.
Choose: **Start with WinZip Classic - Next>**.
Express Setup (recommended)... **Next>**.
WinZip Associations... **Next>**.
Press **Finish** when done.
 - b. Close all of the WinZip windows and delete the two icons added to the desktop (**WinZip** and **Acrobat Reader 7.0**).
 - c. Remove the Titan CD

Warning!: *Before connecting to the network/internet for the first time, all of the critical updates should be loaded from the Windows Update web site as described below. In addition, we highly recommend that Anti Virus software be loaded before connecting a newly loaded XP computer to the Internet. If this computer will never be connected to the internet, go to step F. **Reactivate the Windows XP Software.***

5. If the customer has Anti Virus software, this is a good time to install it. If you are not installing Anti Virus software, go on to step 6 below.
 - a. If Anti Virus software is loaded, it is a good idea to add **D:\aoihome** and **D:\Dpf2Cad** directories to the “Exclusion List.” On Norton 2003, it is done as follows:
 - Open the Norton window and click on **Options**.
 - In the **System** box, click on ► Auto-Protect ► Exclusions.
 - Click on **New...** and navigate to **D:\aoihome** and click **OK**. Click **OK** again in the *Item* window to add **D:\aoihome** to the exclusion list.
 - Click on **New...** and navigate to **D:\Dpf2Cad** and click **OK**. Click **OK** again in the *Item* window to add **D:\Dpf2Cad** to the exclusion list.
 - In the **Internet** box, click on **LiveUpdate**.
 - Select **Notify me when updates are available** and click **OK** in the Automatic Live Update window.
 - Close the Norton window.
6. If the customer has an internet connection, this is a good time to get all of the critical Windows Updates. This is done by connecting the network cable and clicking on **Start | Windows Update**.
 - a. You will be connected to the Windows Update site. Click **Yes** to install the “windows update” program from the *Security Warning* window when it appears. This only happens the first time you visit this site.
 - b. In the Welcome to Windows Update window, click on → [Custom Install](#).
 - c. We will only install the High Priority Updates by clicking on [Review High Priority updates](#).

- d. When all the updates are listed, click on [Go to install updates](#). There could be 7 or more updates available with SP2 installed. Click on **Install** and follow the on-screen instructions to download and install the updates.


Note: *Other updates can be installed if desired. But, all we are concerned with here are the High Priority ones.*

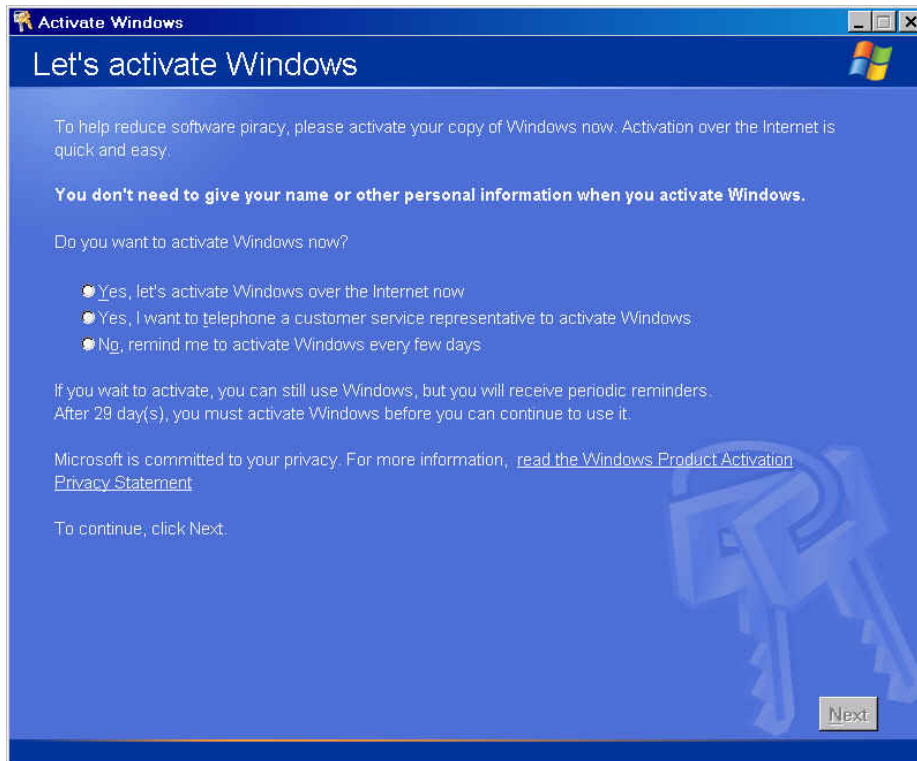
- e. When all the updates are loaded, you will need to Restart the computer.
- f. Repeat until there are no more critical updates or drivers to install.

E. Reactivate the Windows XP Software

Up to this point, you might have noticed a message that keeps popping up from the lower right corner of the screen that states: **30 days left for activation – To activate windows now, click here**. This is something that must be done every time you reload the Operating System. There is no known way around this at this time.

This can be performed from the internet or by phone as described below.

1. Connect the Microdisc computer to the network and **Close** the Dpf2Cad window.
2. Click  and select **Activate Windows** from the list. The following window will appear...



3. ➔ If you have a connection to the Internet, select...
 - Ⓐ ***Yes. Let's activate Windows over the Internet now*** and click **Next**.
 - a. The next window will ask if you also want to Register with Microsoft or not. Because this system should rarely be on the Internet, select...
 - Ⓐ ***No. I don't want to register now; let's just activate Windows***

and click **N**ext>.

- b. The rest is automatic. In a few seconds, you should see a **Thank You!** Window stating that you successfully activated your copy of Windows. Click **OK**. This is by far, the easiest way to activate Windows.
4. ➔ If you do not have a connection to the Internet, you can activate Windows by phone. This is a little more work but it's not too bad. And, you only have to do this once. From the **Let's activate Windows** screen, select...

Ⓒ *Yes. I want to telephone a customer service representative to activate Windows*

and click **N**ext>.

- a. The following window appears...



5. Follow the directions on the screen. Make sure you have pen and paper ready.
 - a. When you call the Toll-free number, you will be asked if you want to register or not. You can answer **No** to that. You will either have to key in the 50 digit **Installation ID** number that is shown on your screen, or speak the ID number into the phone – depending on your area.
 - b. A computer voice will give you the **Confirmation ID** number for blocks A through G. You can write these down first and enter them later.
 - c. After entering all the numbers, press the **N**ext button.

2. Completing the Titan/Workstation Integration

A. Restore the backed up files and directories

(From a reload of the same version of software only)

1. Restore the following files and directories from the floppy disk used at the beginning of this procedure *(on Page 5)*.
 - a. **D:\aoihome\bin\gat2.cnf**
 - b. D:\aoihome\data directory.
2. If there were jobs that were backed up, restore those also.
3. If this was a reload of the same version of software, and all of the files were backed up and restored, then all you need to do is to re-install the password as described in steps **B.** and **C.** below.

B. Operator Setup

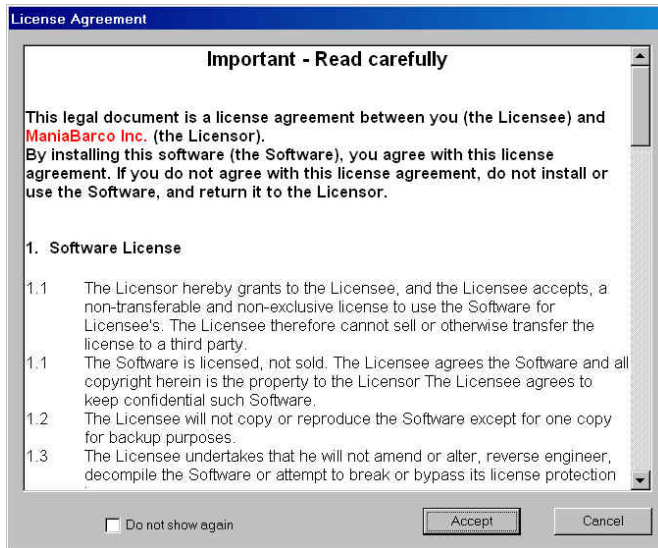
1. With the XP computer fully connected, boot up the computer and power on the Titan (*the red mushroom switch on the right side of the table*). The red laser pointer will light when the Titan control program is running and initialized. This will be the Embedded Controller on the two-controller systems or, the Gat24Viper.exe program on the single controller systems. When booted, logon as **Aoi**.

***Note:** The Titan control program (Gat24Viper.exe) runs as a service on the Single computer Titan. There is no indication that it is running other than the servos moving slightly and red laser light coming on. To enable a Command Prompt window for the Gat24Viper program, see the Reference Information section on page 33.*

2. When the light pointer is on, double click on the **Titan** icon displayed on the desktop. When the Titan application is started for the first time, the following prompts may be displayed.



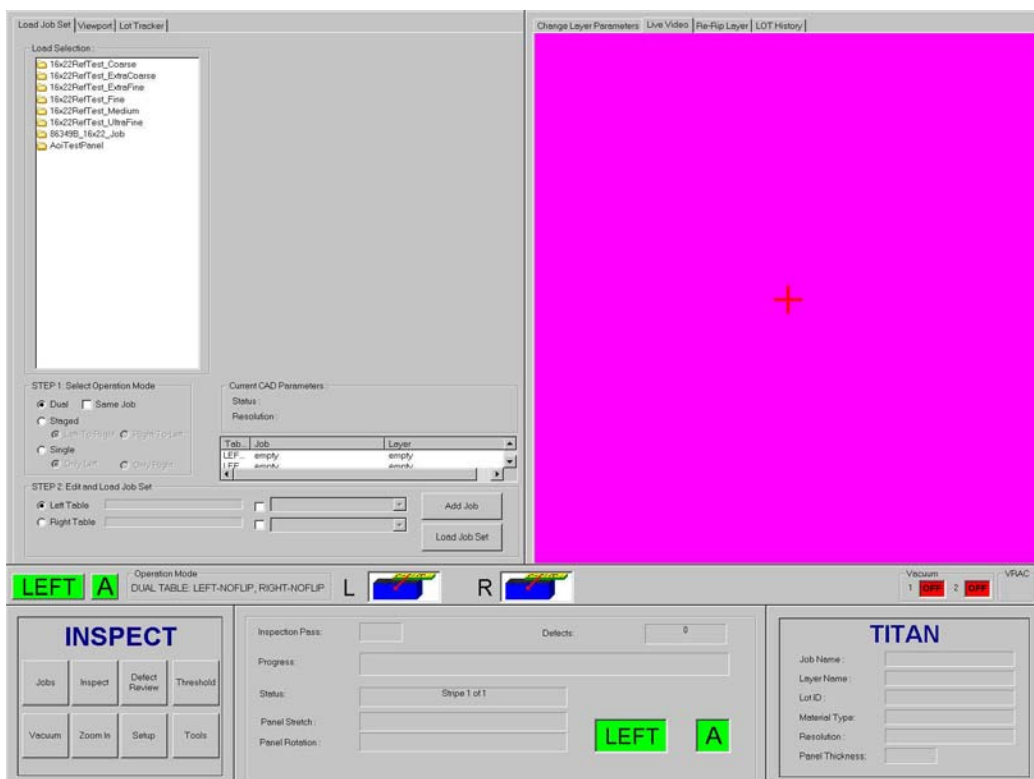
3. Click **Ok**. The system will update the configuration file on the Front-end Computer (*D:\aoihome\data\sys\SYSCONFIG.DAT*). Then, the License Agreement window appears as shown below.



4. Read the software license agreement and, if you agree, check the **Do not show again** box and click **Accept**.
5. A popup window will appear stating that the password is not valid for this version. Click **OK**.
6. A second reminder message appears...



7. Click **OK**. Then, the Titan Application should start and resemble below.



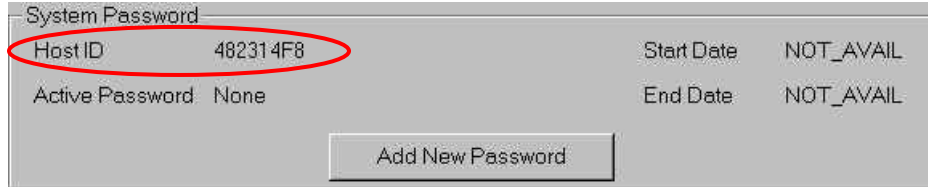
C. Add the Application Password

Note: Ensure the network cable is connected to the Microdisc computer. The Titan application will supply a different HostID when the network cable is not connected.

1. You will need to reinstall the temporary password.

➔ **Get the HostID Number:**

Click on the **Setup** button and select the **System Setup** Tab. The following information appears in the bottom of the **System Setup** window...



- a. Write down the HostID number displayed in the bottom of the window and, if not done already, send an email to Mania Technologie as described below to obtain your new Titan Version 6.xx password.

To Obtain your new Titan password...

Send an email with the following information to aoilicense@maniabarco.com.

Subject: Titan Password

Company Name: _____

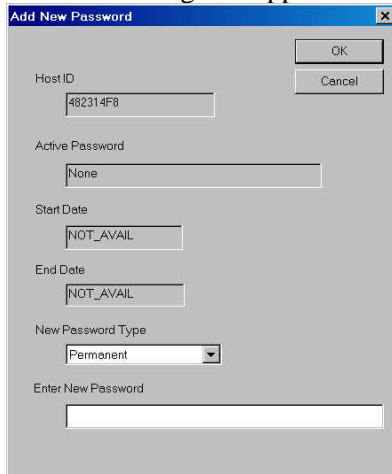
System Serial Number: _____

HostID Number: _____

All passwords will be 90 day Temporary unless you previously had a 1-year Temporary or a permanent password installed. In these cases, you will receive a 1-year Temporary password.

2. When you have your new password, go back to the **System Setup** Tab (*as described above*) and add it to the system as follows:

➔ **Add the new 6.00 Password:** Click on the **Add New Password** button. The *Add New Password* dialog box appears.



3. Select the **New Password Type -- Temporary.**

4. Enter the new password in the **Enter New Password** field and click **OK**. The following window should appear:



5. Click **OK**.

6. Setup is done if this was a reload of the same version of software and all of the files were backed up and restored as described on page 25.

D. Live Video Setup

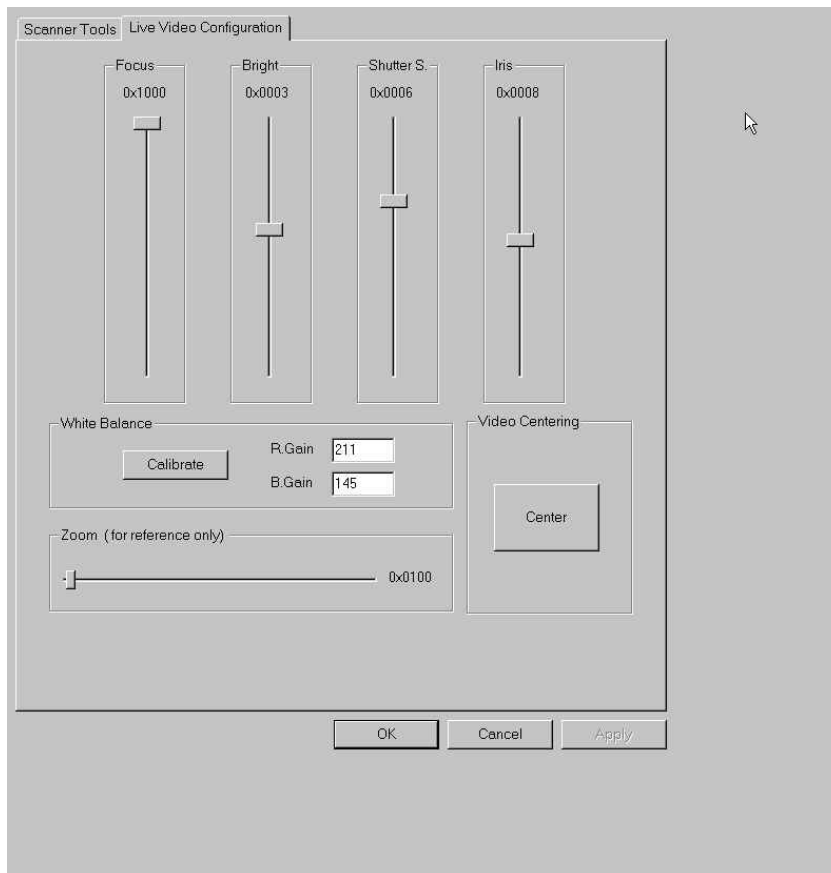
1. Place the Titan Test panel film on the platen (remember to place the film emulsion down on the High contrast white paper). When the Test Panel Film is in place, press **F5** to enable the vacuum to the table.
2. Click on the **Tools** button and select the **Live Video Configuration** Tab. Move the table so that complete Live Video viewing area is over the white background.

Note: Press the **Shift/F5** keys, if necessary, to move the servos using the arrow keys.

3. When the camera is in position, click **Calibrate** in the *White Balance* area. When the calibration routine completes, click **Apply** to store new settings.
4. Now, move the Live Video camera over some data and move the **Zoom slider** to a reading of **0x4cxx**.

Note: The value **0x4cxx** is used because it represents approximately the same zoom level that the Application uses when reviewing defects.

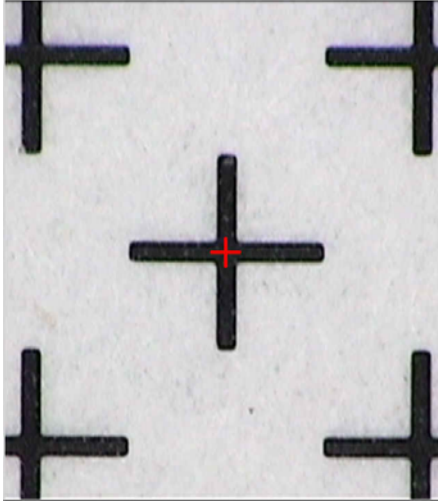
5. Set the **Shutter S.** slider to 0006 and the **Iris** slider to 0008 as default starting points.



6. Use the **Focus** and **Bright** sliders to adjust the video display to your liking. This is a subjective adjustment that changes from operator to operator.

*Note: As a basic rule-of-thumb, film appears best with the **Bright** set at 1 or 2, while copper appears best at 3 or 4.*

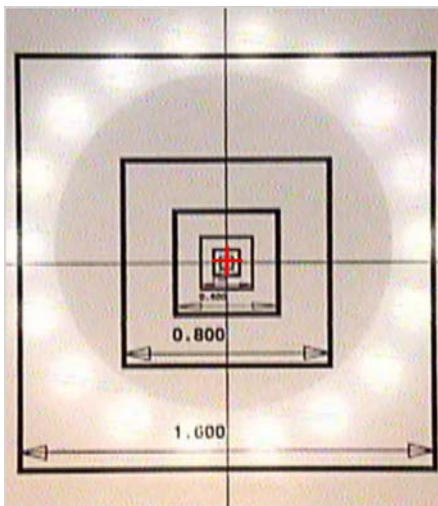
7. Use the **Zoom** slider to see how the settings appear at different zoom levels. The previous settings gave the following results:



8. When satisfied with the results, click **OK**.

E. Live Video Camera Centering

1. From the main Titan Application, click on the **Tools** button and select the **Live Video Configuration** Tab again.
2. Position the platen and scan head so that the live video cross hair is centered over a small feature on the film. Below, we are using the Titan Test Film that is shipped with the system.



3. Click on the **Center** button and follow the directions. The camera will zoom in to all of the Titan zoom levels and ask you to re-center the crosshair on the target by using the slew buttons on the Titan keypad.
4. Keep centering and clicking **OK** until done. Now, the Live Video camera must be re-calibrated.

F. Setup the Titan System Pointers

Calibrate the Live Video:

1. Click on the **Setup** button, select the **System Setup** Tab, and click on **Calibrate Video Camera**. Move the Platen with the arrow keys so that the cross hair displayed in the live video image is over the cross hair of the first reference point on the film.
Remember: Use the Shift Key in conjunction with the arrow keys to slow down platen movement, when doing fine positioning.
2. When in position, click **Ok** in the *Position Live Video* window.
 - a. After scanning is complete, position the mouse pointer in the center of the cross hair and click the **Right** mouse button.

Note: If desired, you can zoom in on the cross hair (by using the **Left** mouse button to click and drag a box around it) to get a more precise calibration. If you accidentally zoom in too far, clicking the **Left** mouse button, without dragging the mouse, will return to the original displayed image.

3. Click **Calibrate Video Camera** again and then press the **Toggle** button on the Key Pad to turn the red laser pointer on. With the light pointer on, physically move the Light Pointer Bracket so the red dot displayed on the film is located over the center of the red Cross hair displayed in the live video image. When in position, click **Cancel** to exit the Video Camera calibration routine.

Calibrate the Light Pointer:

4. Click **Calibrate Light Pointer** button and click **Ok**. When the system has completed scanning, position the mouse pointer in the center of the cross hair and click the **Right mouse button**.

Calibrate the Ink Marker:

5. After the light Pointer is calibrated, place a (black) marker in the Ink Marker Assembly and click on **Calibrate Ink Marker**. Place a white piece of paper under the Marker Assembly and then click **Ok**. When the system has completed scanning, zoom into the center of ink mark (if necessary) and click the **Right mouse button** to save pointer settings and exit the *Alignment* window.
6. The system is now ready to setup for customer jobs.

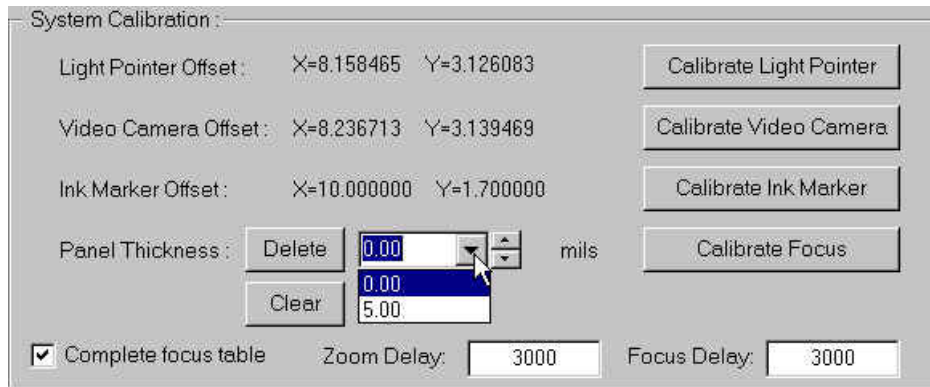
Note: All Material and job templates will need to be re-created. All material calibration will need to be re-done as well before Inspections can be performed.

G. Create a Live Video Focus Table

Due to the fact that the live video camera is no longer mounted on the scan head, it is not automatically kept in focus with different materials. Perform the Focus Calibration procedure as follows.

1. Go to Setup > System Setup.
2. In the System Calibration area, enter the thickness of the material (in mils). Clicking on the dropdown arrow (as shown below) displays current entries in the Focus Table. The entry 5.00 mils is for film and 0.00 is needed for the basic operation.

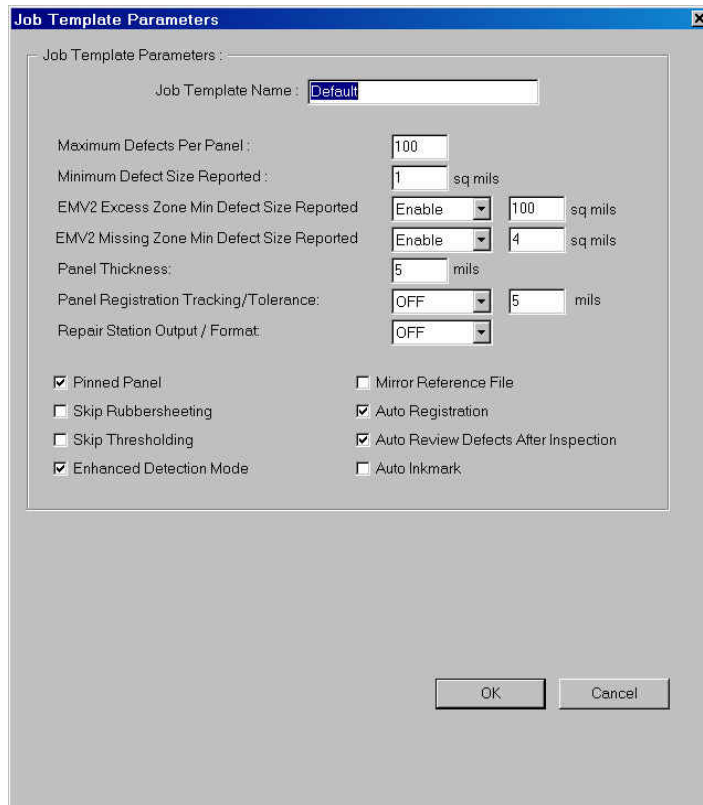
Note: An entry of zero is necessary to prevent unwanted error messages in the Titan software.



3. After selecting or typing in the panel thickness, click on the **Calibrate Focus** button.
4. The system will prompt you to move over an area of the material for both the left and the right tables. Currently, no message is displayed during the calibration process.

H. Create a Default Job Template

1. Click the **Setup** button from the Inspect panel of the Control area and select the **Job Template Manager** Tab from the *Options* window.
2. Click the **New** button in the **Job Templates:** box. The **Job Template Parameters** dialog box appears. Set the **Job Template Name** to **Default** and set the rest of the Job Template Parameters as shown in the figure below:



3. Click **OK** when done.

I. Create a Default Material Template for Film

1. Select the **Material Manager** Tab from the *Options* window click on the **New** button to display the **New Material** window.
2. Enter the New Material Name – **Film** – and set the rest of the parameters as shown in the figure on the following page.

3. When done, click the **Calibrate** button.
 - a. At the popup, position the Live Video over a white area on the Test Film and click **OK**.
4. The will calibrate each camera at all of the selected resolutions. When complete, (~7 minutes) the **Calibrated Values** area of the *New Material* window will be filled in.

Resolution	SPE	DIF
Extra Fine	0	128
Fine	0	121
Medium	0	90
Coarse	0	105
Extra Coarse	0	96

5. Click **OK** when done. The system is now ready for use

3. Reference Information

A. Backing up the Titan Configuration Files

1. Open Windows Explorer and create a new directory on the **C:** drive to store the Titan Configuration Files. Suggested directory name, **TitanBackupFiles**.
2. Copy the following directories to the newly created **C:\TitanBackupFiles** directory.
 - a. **D:\aoihome\bin** directory (This contains all the program files and, if this is a single controller system, the Gat2.cnf).
 - b. **D:\aoihome\Data** directory (This contains all the calibration and setup files).

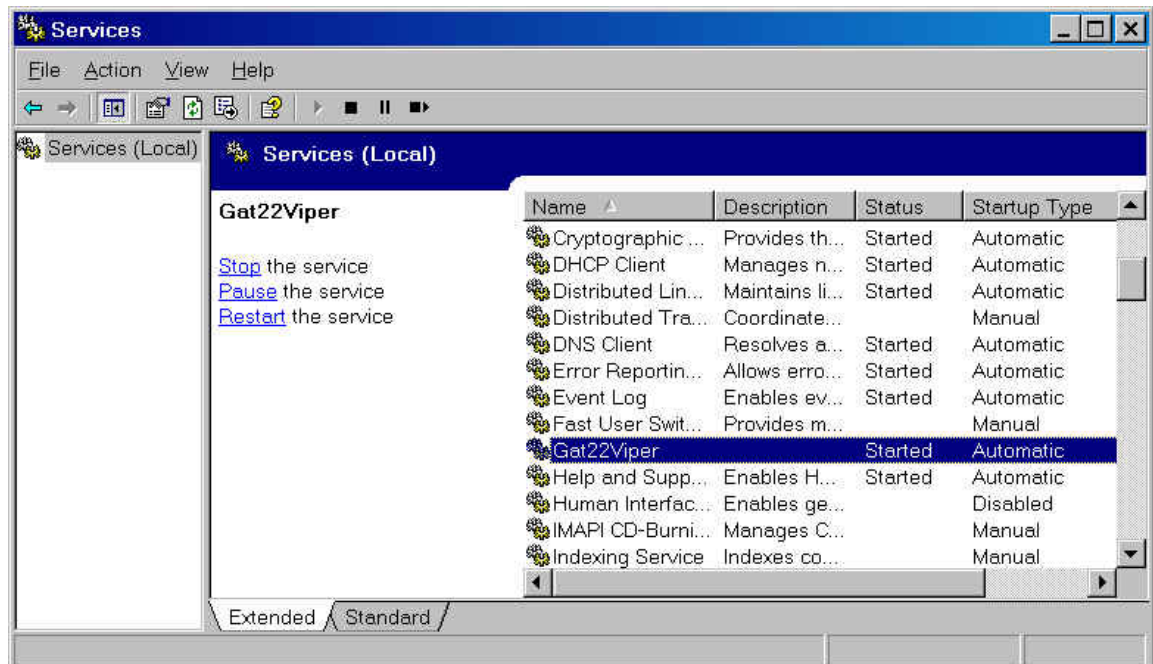
B. Starting and Stopping the Gat24Viper service

The combined control configuration installs a system service to start and stop the **Gat24Viper.exe** program located in the **D:\aoihome\bin** directory. This program, in essence, takes the place of the Embedded Controller on the 2-controller systems. The program starts automatically on boot up and runs in the background. A **Viper Console** window may optionally be displayed for maintenance purposes (*for the same reasons the Talkserial b window was used*) in one of 2 ways...

➔ ❶ To display the Viper Console window for a one-time purpose...

Use this method when you have changed the Gat2.cnf file (*or added an embedded environment variable*) and want to see the results without rebooting. Also, when you do not want to leave the window open for the customer to use after you leave.

1. Close Titan if it is running and click on **Start-Programs-Administrative Tools-Services** to get the following window.



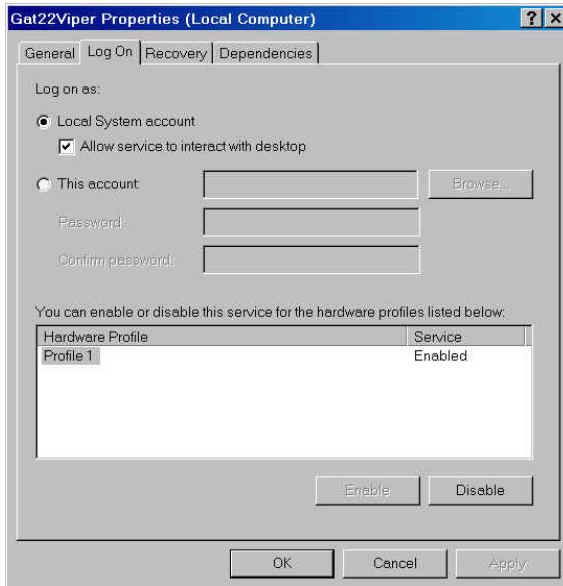
2. Right click on **Gat24Viper** and select **Stop** from the popup window. Or, select **Gat24Viper** and click on **Stop the service** in the window.

- Now, open the Windows Explorer and double click on **Gat24Viper.exe** in **D:\aoihome\bin**. The **Viper Console** window will appear and the new Gat2.cnf values will be read into the program. Rebooting the system will restore it back to normal.

Note: Using the second method (described below) does not read in new Gat2.cnf values or new environment values unless you reboot the workstation.

➔ **2 To display the Viper Console window every time you log in...**

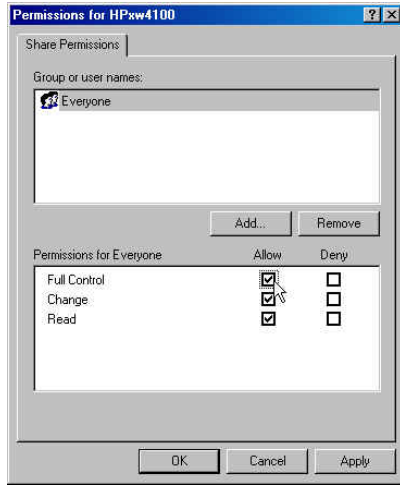
- Click on **Start** **Programs** **Administrative Tools-Services** to get the services window again as shown above.
- Double click on the **Gat24Viper** service to get the properties window shown below.



- Select the **Log On** Tab as shown.
 - Click on the **Allow service to interact with desktop** box and click **OK**.
- Note: By default, this box is unchecked.*
- For the change to take effect, you will have to **Stop** then **Start** the service again.
 - The change will remain in effect until you uncheck the **Allow service to interact with desktop** box and Stop/Start the service again.


C. Sharing Directories with XP

- Open Windows Explorer and navigate to the directory you want to share. Normally, this is the **D:\Dpf2Cad\JobSpool** directory. Right click on the directory and select **Sharing and Security...** from the list.
- In the Properties window that appears, click on...
 - ☉ *Share this folder*
- Click on the Permissions button and click on the *Full Control* box to give *Everyone* Write permissions to the directory... Then click **OK**.



Note: If you do not want to give Everyone Full Control of your shared directory, you can click on the **Add...** button and add a specific Group or User in which to give Full Control to.

When done, click **OK** in the *Properties* window.

A little “hand”  should appear under the directory icon indicating that it has been shared.

D. Enable Auto Restart after a Power Loss

(This is used for system with UPS system installed)

1. Go to the **Advanced BIOS Features** Menu in the BIOS Setup
 - a. Set, PWRON After PWR-Fail to On
2. **Save** the settings and exit the BIOS Setup

E. Setting up the Computer for AutoLogin (*Optional*)

Note: Before making any changes to the Registry, it is highly recommended that you backup the Registry by performing the Automated System Recovery procedure outlined on page **Error!** **Bookmark not defined.**

1. On the TITAN computer, click on the **Start** Button, select **Run...** and type **REGEDT32** to open the Registry Editor.
2. Go to HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowsNT\CurrentVersion\Winlogon and check for the following values:
 - **AutoAdminLogon** Set to "1" to automate the logon process ("0" to disable)
 - **DefaultDomainName** Enter the appropriate information – [ComputerName]
 - **DefaultUserName** Enter the appropriate information – **AOI**
 - **DefaultPassword** Enter the appropriate information – **barco1** or **mania1**
3. If the value is not present, it will have to be created as follows:
 - With the above key selected, click on, **Edit > New > String Value** from the Registry Editor toolbar.
 - Name the new value (**DefaultPassword** for instance) and press **Enter**.
 - Double click on the newly created value to display the Edit String dialog box.
 - Enter the value (the password in this case) and click **OK**.
4. **Exit** the Regedt32 program and **reboot** the computer to ensure that it automatically logs in to the AOI account.