1-USING ANY COMPUTER TO ACCESS FILES OR PRINTERS SHARED FROM ANOTHER "WINDOWS.." COMPUTER

by Francis Chao
fchao2@yahoo.com

TuCson Computer Society

apcug An International Association of Technology & Computer User Groups

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SUMMARY

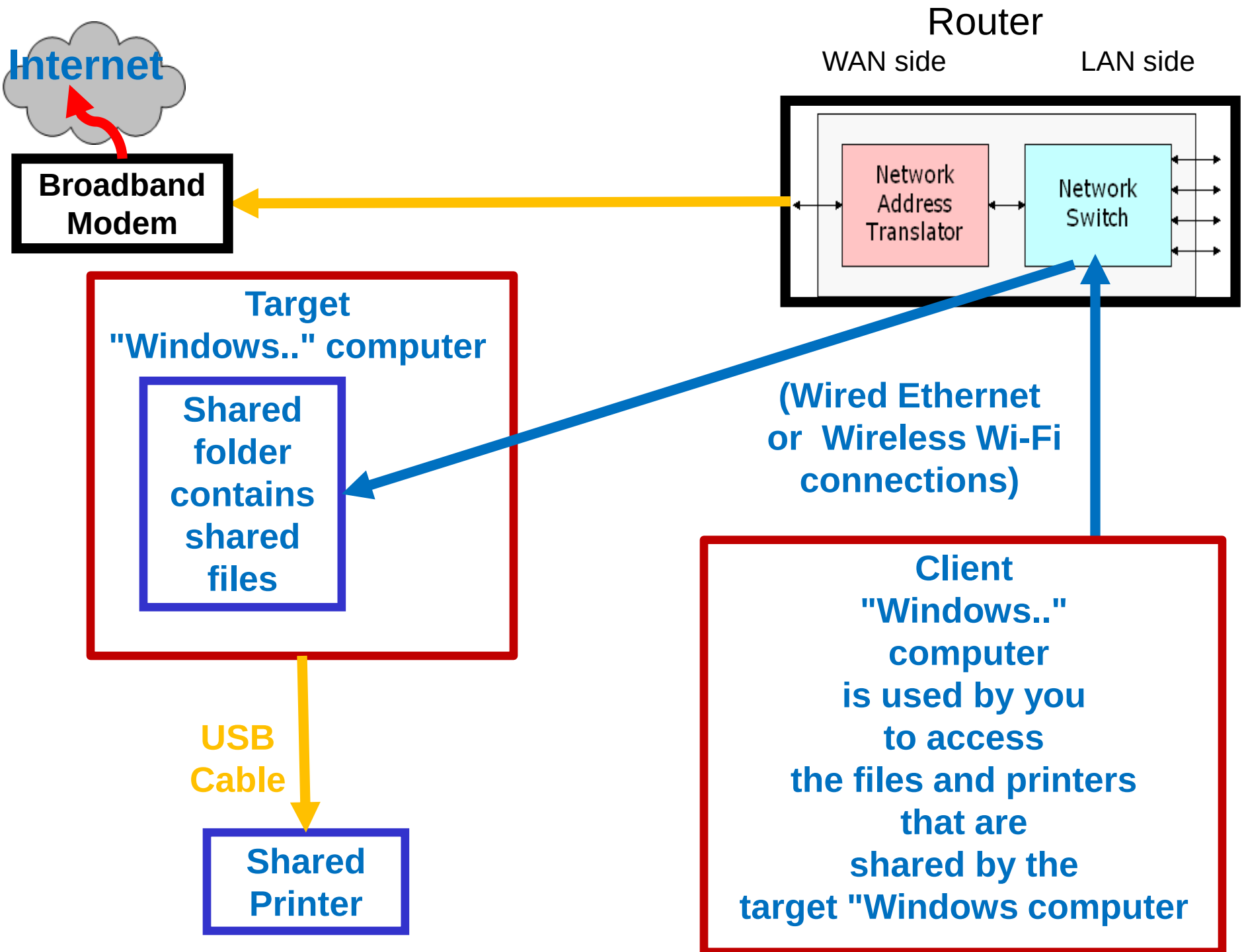
Here are our basic advice for using any "Windows.." or Linux computer to access files or printers that are shared by another Windows.. computer.

TOPICS

- Microsoft's "Server Message Block" ("SMB") Protocol for File and Printer Sharing
- File Sharing Between Windows.. computers
- File Sharing Between Windows.. and Linux computers
- Comprehensive Fix for "Server Message Block" File Sharing Woes
- Use the Private IP address of the target computer to force file and printer sharing

FILE SHARING IN "WINDOWS.."

- "Server Message Block" ("SMB") protocol
- Most attempts to share files and printers over a local network fail due to various incompatibilities between Windows versions, hardware issues, and Microsoft's horrible documentation


Internet
Broadband Modem
Router
WAN side
LAN side
Network Address Translator
Network Switch
Target "Windows.." computer
Shared folder contains shared files
(Wired Ethernet or Wireless Wi-Fi connections)
Client "Windows.." computer is used by you to access the files and printers that are shared by the target "Windows computer
USB Cable
Shared Printer

- FILE SHARING IN "WINDOWS.." (continued)

- "Server Message Block" ("SMB") has "on/off" listing in "Windows Defender Firewall" where it is called "File and Printer Sharing". The default there is to have both "Private" and "Public" checked.

FILE SHARING IN "WINDOWS.." (continued)

- ("File Explorer"
  in "Windows 8", "Windows 10", and "Windows 11"
  is analogous to
  "Windows Explorer"
  in "Windows XP", "Windows Vista", and "Windows 7")

FILE SHARING IN "WINDOWS.." (continued)

- Computers with shared folders and shared printers shared by means of "Server Message Block" ("SMB") show up in "Network" in "File Explorer"

"WIRELESS ISOLATION"

- Wireless Wi-Fi "public networks" such as at Starbucks block "SMB" file sharing
  = "Wireless Isolation"
- Home routers and the router part of broadband modems do not block "SMB" file sharing (usually)

"WIRELESS ISOLATION" (continued)

- By default, home routers do not have "wireless isolation" with the exception that some of the more expensive home routers allow you to have "wireless isolation" for the "guest network"

"WIRELESS ISOLATION" (continued)

- The end result is:
  Never expect to do "Server Message Block" file sharing or "Server Message Block" printer sharing at a "Starbucks" or a hotel

"WIRELESS ISOLATION" (continued)

- To do "Server Message Block" file sharing file sharing or printer sharing at a "Starbucks", bring your own "Wireless Internet Service Provider" ("WISP") router: Then the attach your Windows.. computers to the WISP router's wired Ethernet side or to the WISP router's "wireless access point".

"SERVER MESSAGE BLOCK" BASICS

- Windows XP: SMB ver. 1
- Windows Vista: SMB ver. 2,
  and SMB ver. 1
- Windows 7: SMB ver. 2
  and SMB ver. 1
- Windows 8: SMB ver. 3, SMB ver. 2,
  and SMB ver. 1
- Windows 10 & 11: SMB ver. 3,
  SMB ver. 2,
  and SMB ver. 1

"SERVER MESSAGE BLOCK" BASICS (continued)

- File sharing between different versions of "Windows.." use the "lowest common denominator"

"SERVER MESSAGE BLOCK" BASICS (continued)

- To do "Server Message Block" file sharing between a "Windows 10.." computer and a "Windows XP.." computer, you have to turn on "SMB 1" in the "Windows 10" computer in "..Windows Features.." in "Programs and Features" in the "Control Panel"

"SERVER MESSAGE BLOCK" BASICS (continued)

- To do "Server Message Block" file sharing between "Windows XP.." computer and higher version of "Windows", you also have to change the "workgroup" of the "Windows XP" computer from "MSHOME" to "WORKGROUP"

FILE SHARING OPTIONS FOR VARIOUS EDITIONS OF "WINDOWS.."

- Windows XP
  to and from Windows XP:
  Use SMB ver. 1

FILE SHARING OPTIONS (continued)

- Windows XP
  to and from "Windows Vista" and higher:
  Use SMB ver. 1
  after changing "workgroup" in "Windows XP" to "WORKGROUP" AND turning on SMB ver. 1 in the Windows Vista, 8, 10, or 11 computer

FILE SHARING OPTIONS (continued)

- Windows 7
  to and from
  Windows 7 or Windows 8:
  Use SMB vers. 2

FILE SHARING OPTIONS (continued)

- Windows 8
  to and from
  Windows 7 or Windows 8:
  Use SMB ver. 2

FILE SHARING OPTIONS (continued)

- Windows 7
  to and from
  Windows 10 or 11:
  Use SMB ver. 2

FILE SHARING OPTIONS (continued)

- Windows 8
  to and from
  Windows 10 or 11:
  Use SMB ver. 3

FILE SHARING OPTIONS (continued)

- Windows 10 or 11
  to and from
  Windows 10 or 11:
  Use SMB ver. 3

COMPREHENSIVE FIX FOR "SERVER MESSAGE BLOCK" FILE SHARING WOES

- Step 1000:
  Perform steps similar to those listed at
  http://aztcs.org/meeting_notes/winhardsig/FileSharing/2-XP-access-Win10-share.pdf
- Step 2000: Do a "System Restore" to a prior "restore point"

COMPREHENSIVE FIX FOR "SERVER MESSAGE BLOCK" FILE SHARING WOES (continued)

- Step 3000:
  Do a "refresh", a "reset", or a fresh installation of the "Windows.." operating system, etc.

USE \\<PRIVATE IP ADDRESS>

- After sharing a file or folder in the "target" computer, use it's private IP address of the "target" computer to "brute force" the computer that you are using to get the computer that you are using to find the shared files

USE \\<PRIVATE IP ADDRESS> (continued)

- Otherwise you may have to wait hours or days before the shared files show up in the computer that you are using.

- Big Step 700:
Run ipconfig to determine the private IP address of the target computer that is sharing its files

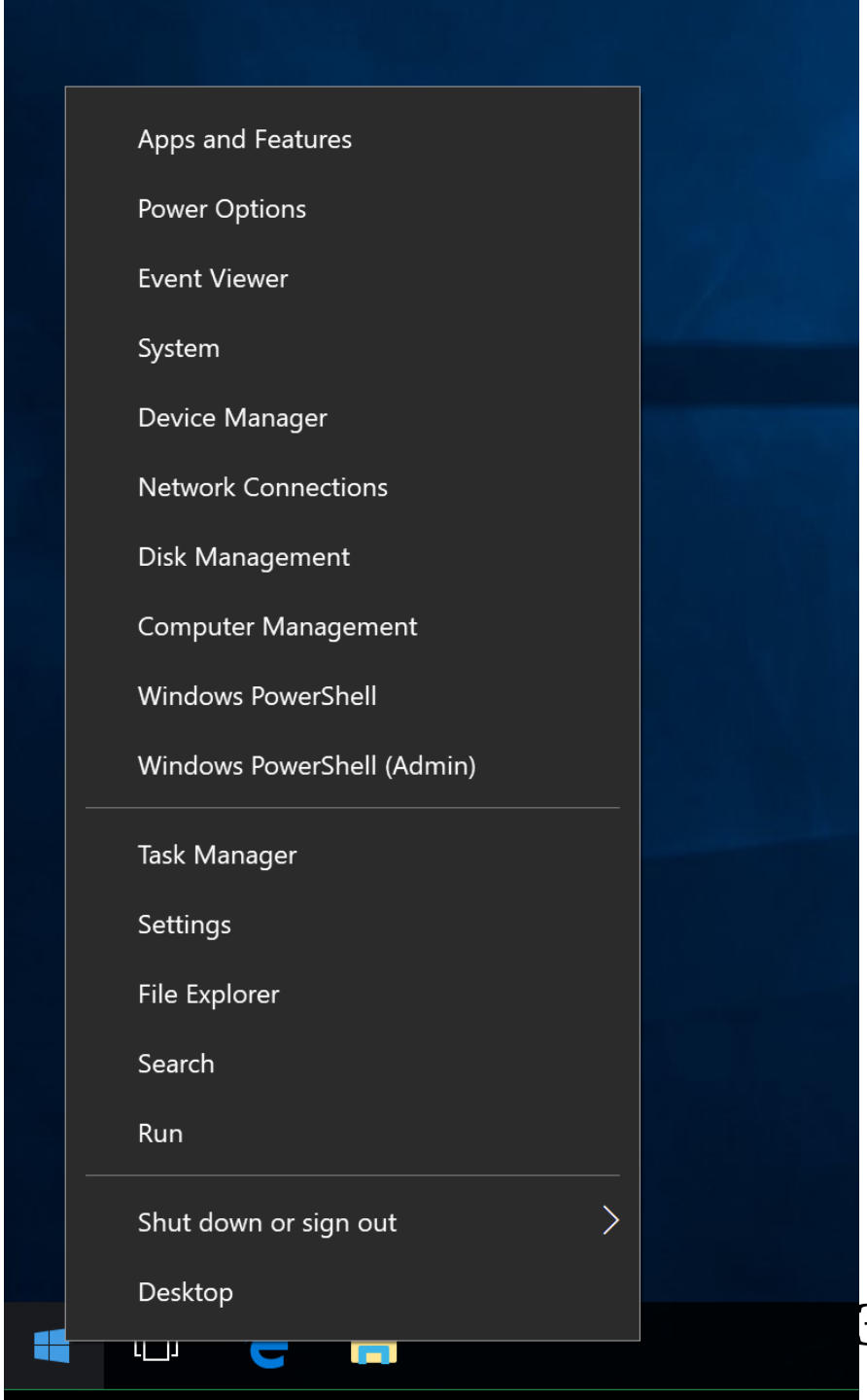
- Step 701:
From inside the target "Windows 10" computer, use the RIGHT mouse button to click on the "Start button":

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 702:

From inside the target "Windows 10" computer, a "Windows key + x" menu will be displayed:

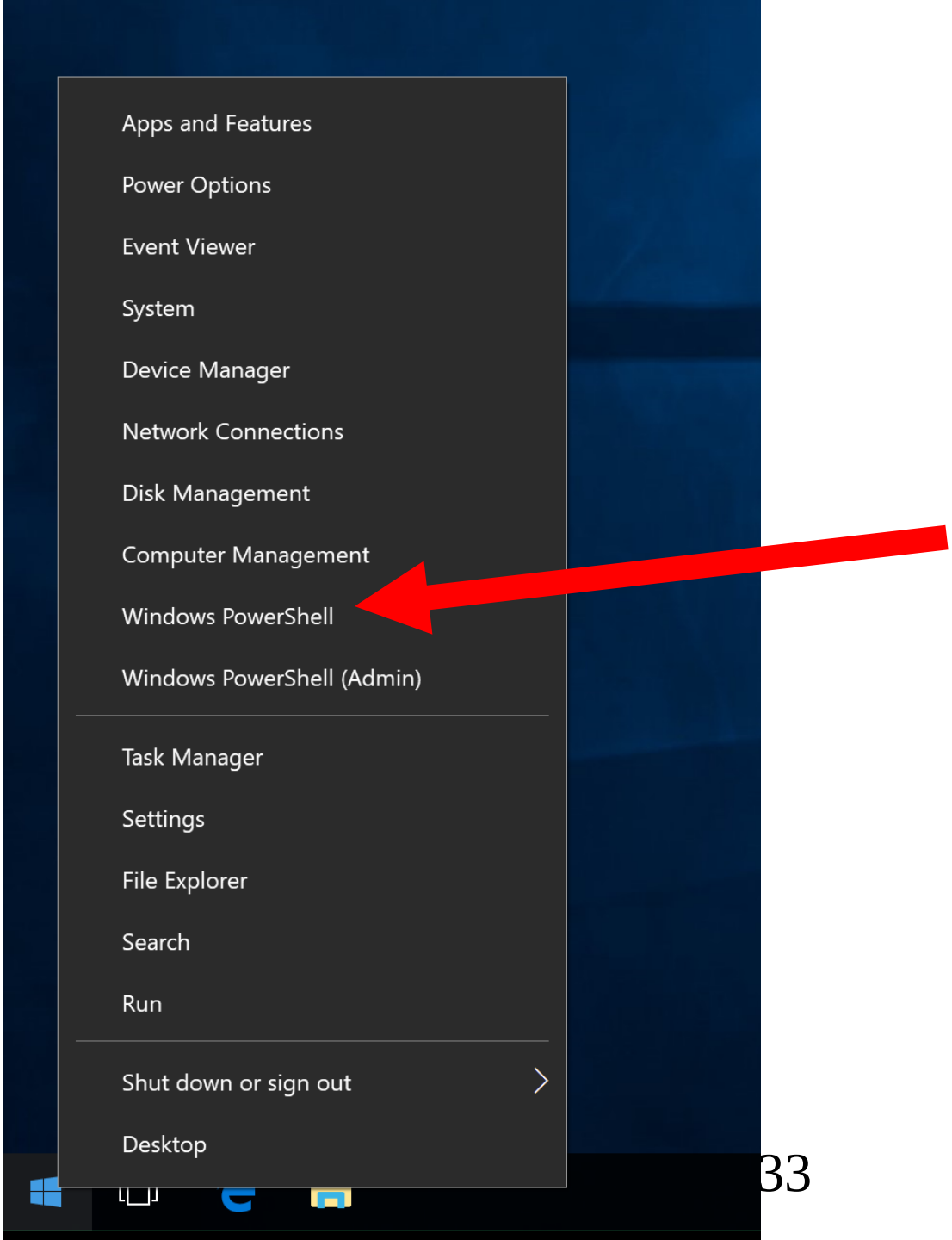

Apps and Features
Power Options
Event Viewer
System
Device Manager
Network Connections
Disk Management
Computer Management
Windows PowerShell
Windows PowerShell (Admin)
Task Manager
Settings
File Explorer
Search
Run
Shut down or sign out
Desktop

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 703:

Use the LEFT mouse button to click on either "Windows Powershell" or "Command Prompt" in the "Windows key + x" menu:


Apps and Features
Power Options
Event Viewer
System
Device Manager
Network Connections
Disk Management
Computer Management
Windows PowerShell
Windows PowerShell (Admin)
Task Manager
Settings
File Explorer
Search
Run
Shut down or sign out
Desktop

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 704:

A "Powershell" or "Command Prompt" window will be displayed:

Windows PowerShell

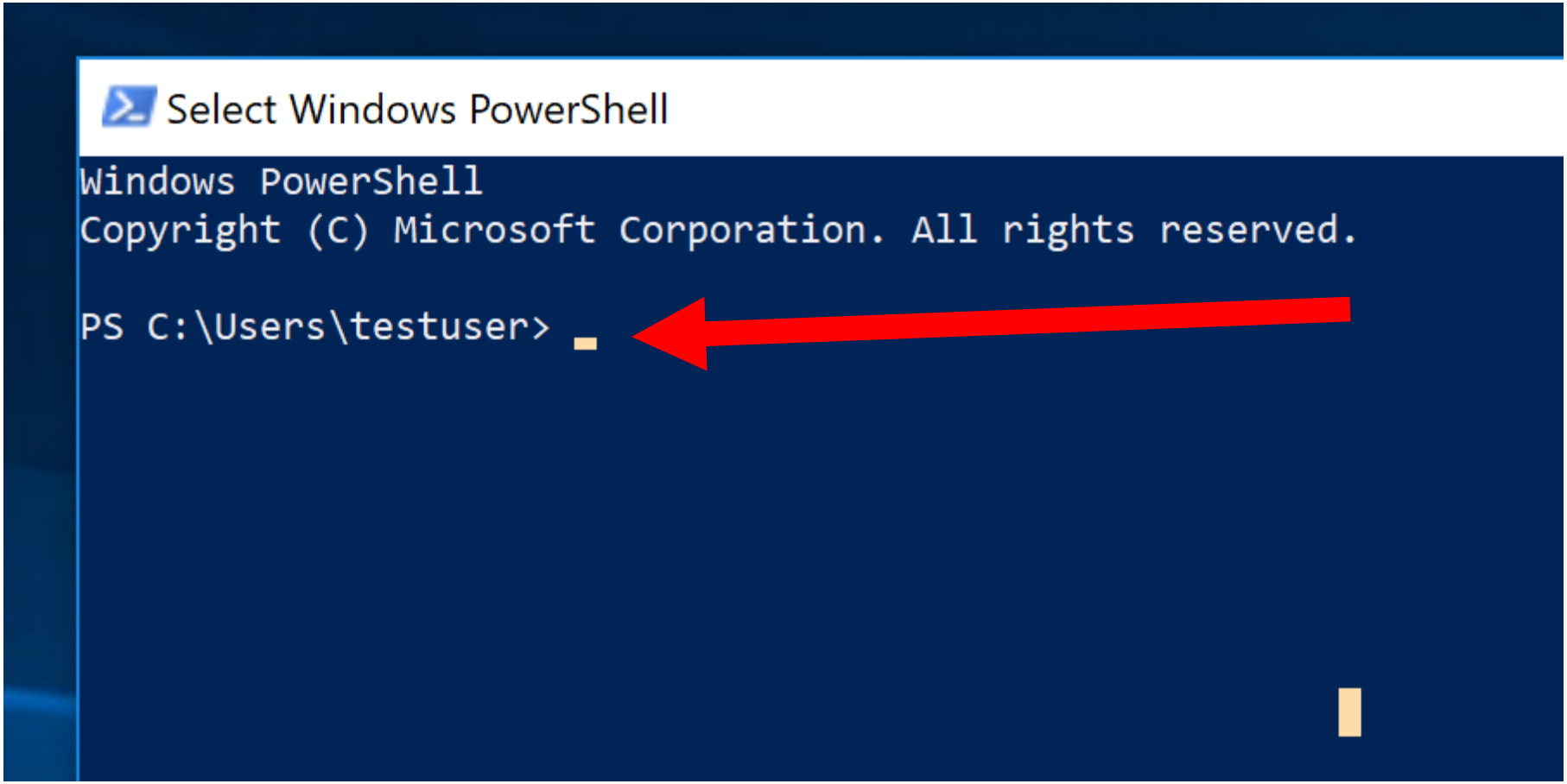
```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\testuser>
```

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

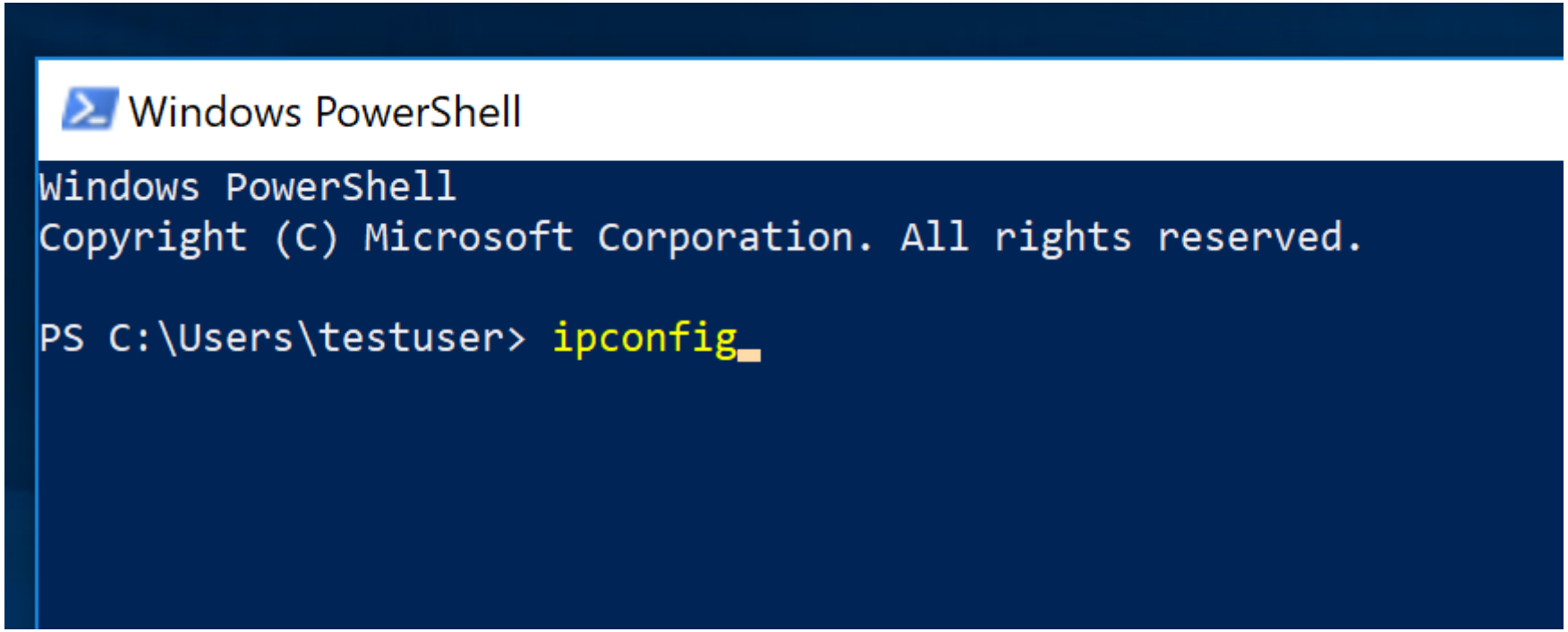
- Step 706:

Use the LEFT mouse to click once inside the "Powershell" or "Command Prompt" window: a blinking cursor will be shown inside the window:


Select Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
PS C:\Users\testuser>

- Big Step 700:
Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 707:
Use the keyboard to type in ipconfig


Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.
PS C:\Users\testuser> ipconfig

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 708:

Press the enter key of the keyboard:

Windows PowerShell

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

PS C:\Users\testuser> ipconfig

Windows IP Configuration


Ethernet adapter Ethernet0:

   Connection-specific DNS Suffix  . : localdomain
   Link-local IPv6 Address . . . . . : fe80::b0ed:392e:c71f:bacf%2
   IPv4 Address. . . . . . . . . . . : 192.168.174.148
   Subnet Mask . . . . . . . . . . . : 255.255.255.0
   Default Gateway . . . . . . . . . : 192.168.174.2

Tunnel adapter Teredo Tunneling Pseudo-Interface:

   Connection-specific DNS Suffix  . :
   IPv6 Address. . . . . . . . . . . : 2001:0:9d38:90d7:3c16:1a1c:3f57:516b
   Link-local IPv6 Address . . . . . : fe80::3c16:1a1c:3f57:516b%3
   Default Gateway . . . . . . . . . : ::
PS C:\Users\testuser>
```

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 709:

Write down the IPv4 address of the lowest-numbered Ethernet or Wireless network adapter:

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files(continued)

- Step 709 (continued) :

In this example, the IPv4 address of my Windows 10 computer is 192.168.174.148 but yours will be different:

```
IPv4 Address. . . . . : 192.168.174.148
```

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 710:

Type

exit

```
PS C:\Users\testuser> exit
```

- Big Step 700:

Run ipconfig to determine the private IP address of the target computer that is sharing its files (continued)

- Step 711:

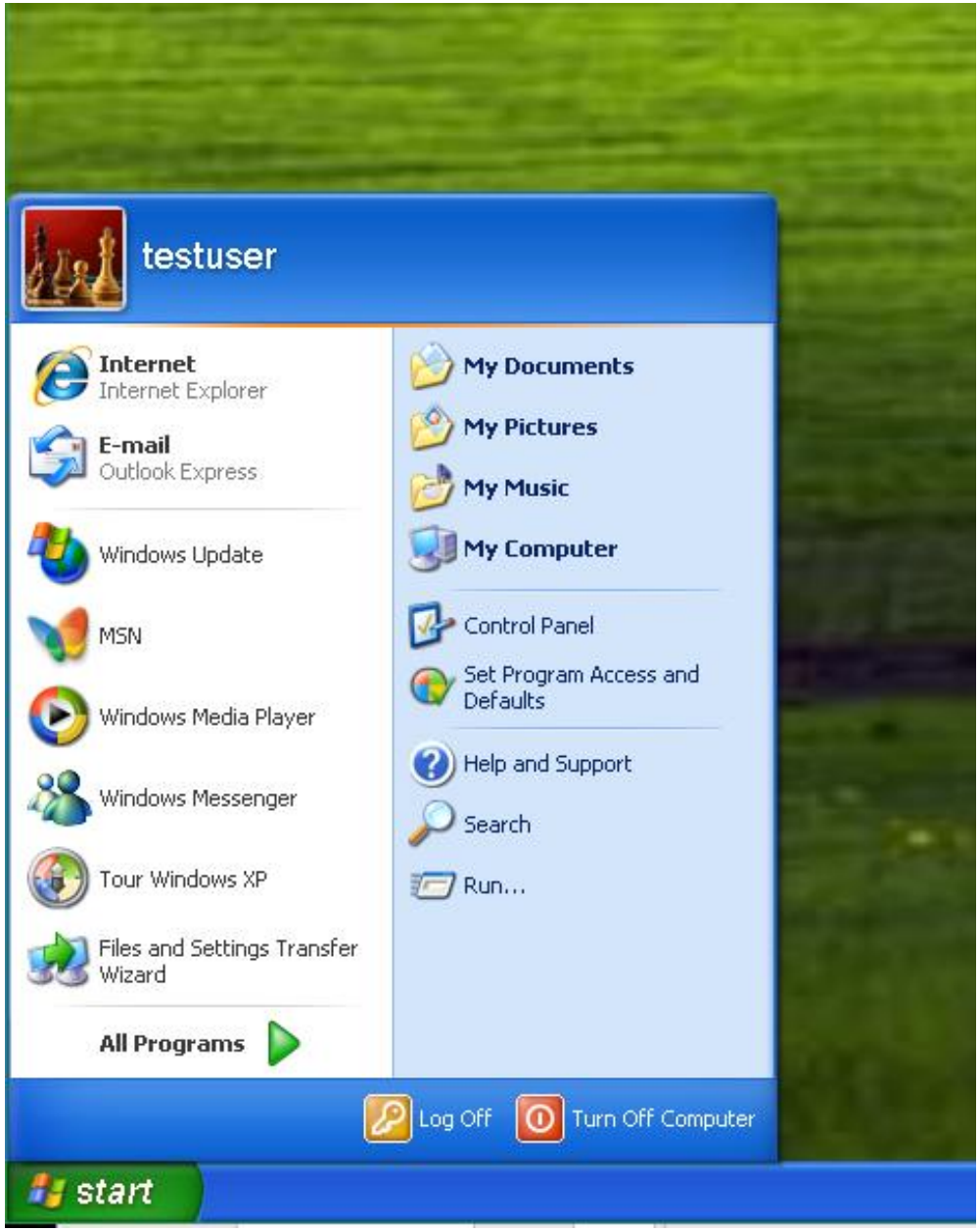
Press the enter key of the keyboard

- Big Step 800:
From the client computer that needs to access the shared files go to \\<private ip address of the computer that is sharing the files>

- Step 801:
From inside the "Windows XP" computer, click on the "Start button"

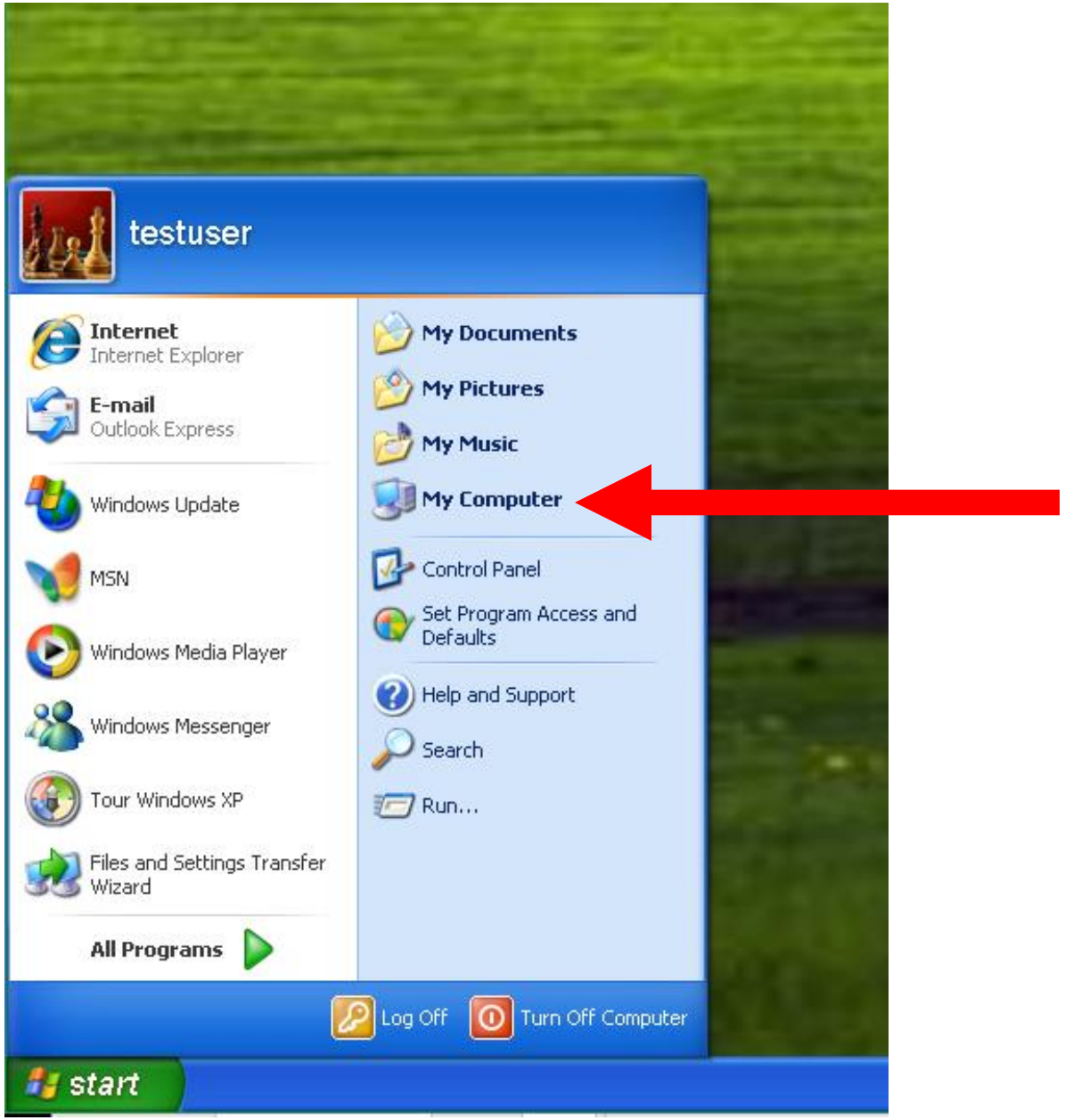
- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 802:
The "Start menu" of "Windows XP" will be displayed:


testuser
Internet
Internet Explorer
E-mail
Outlook Express
Windows Update
MSN
Windows Media Player
Windows Messenger
Tour Windows XP
Files and Settings Transfer Wizard
All Programs
My Documents
My Pictures
My Music
My Computer
Control Panel
Set Program Access and Defaults
Help and Support
Search
Run...
Log Off
Turn Off Computer
start

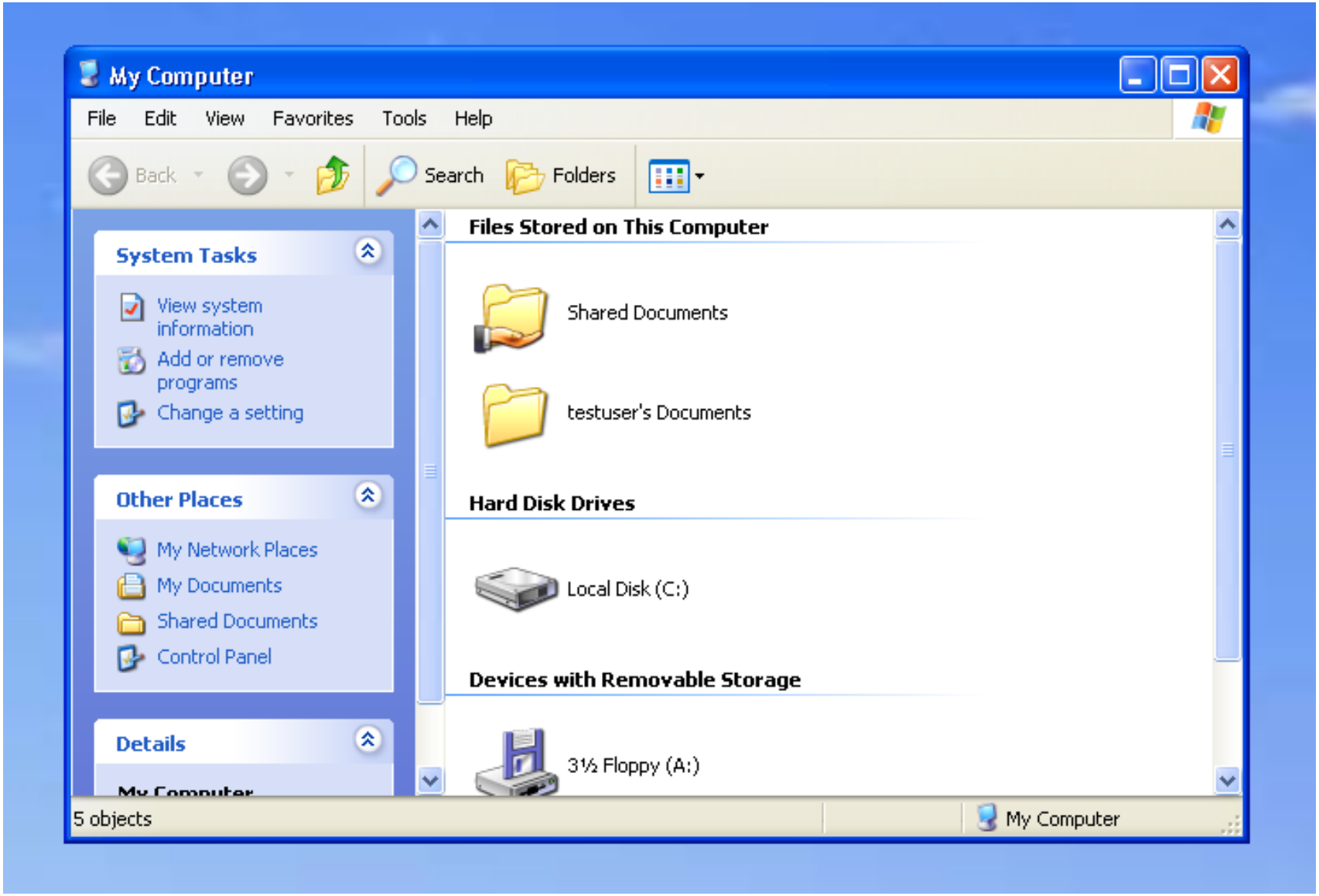
- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 803:
Double-click on any "Windows Explorer" location such as "My Computer" or "My Documents":


testuser
Internet
Internet Explorer
E-mail
Outlook Express
Windows Update
MSN
Windows Media Player
Windows Messenger
Tour Windows XP
Files and Settings Transfer Wizard
All Programs
My Documents
My Pictures
My Music
My Computer
Control Panel
Set Program Access and Defaults
Help and Support
Search
Run...
Log Off
Turn Off Computer
start

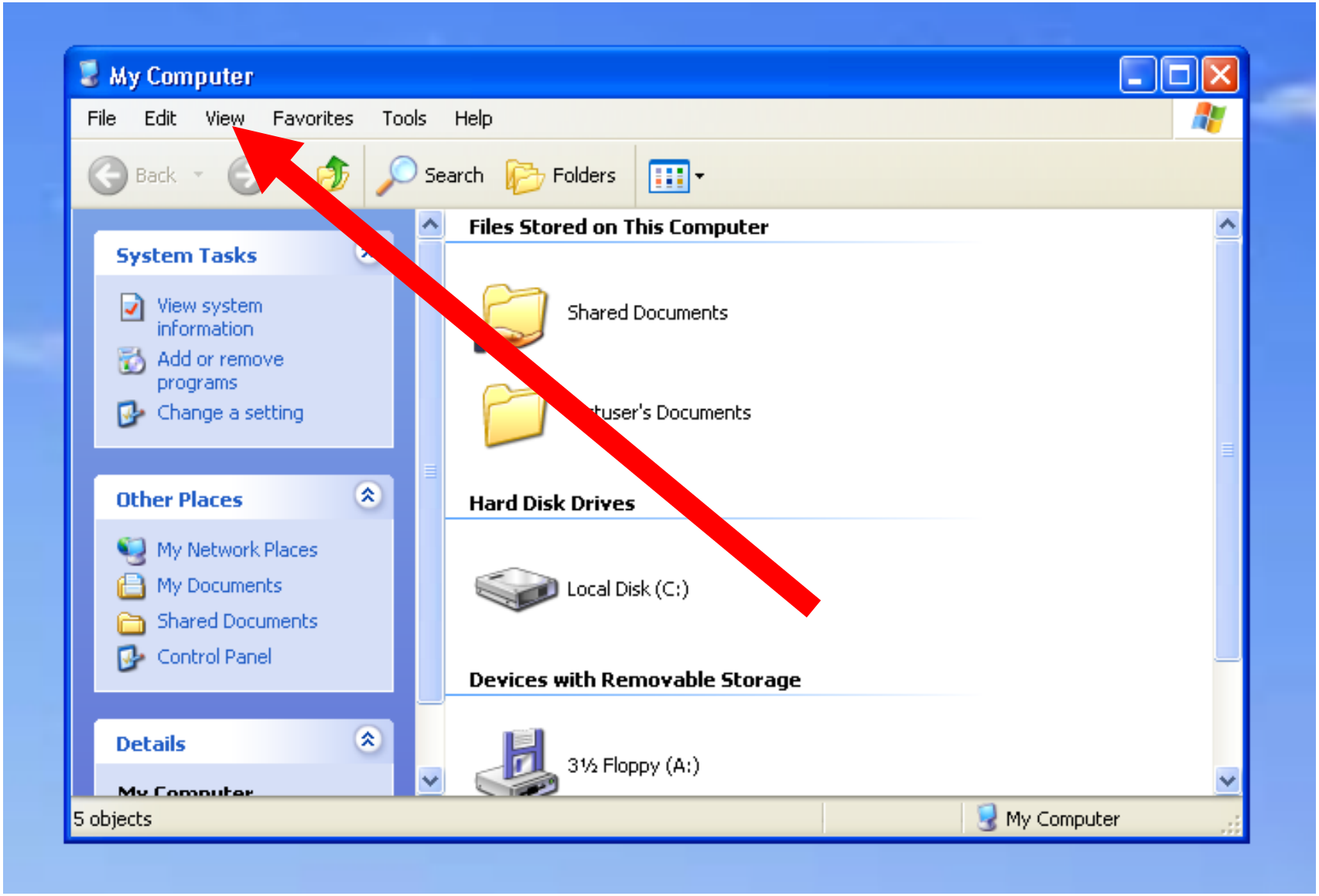
- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 804:
A "Windows Explorer" window will be displayed:


My Computer
File
Edit
View
Favorites
Tools
Help
Back
Search
Folders
System Tasks
View system information
Add or remove programs
Change a setting
Other Places
My Network Places
My Documents
Shared Documents
Control Panel
Details
Files Stored on This Computer
Shared Documents
testuser's Documents
Hard Disk Drives
Local Disk (C:)
Devices with Removable Storage
3½ Floppy (A:)
5 objects
My Computer

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 805:
Click on "View" in the pull-down menu bar:


My Computer
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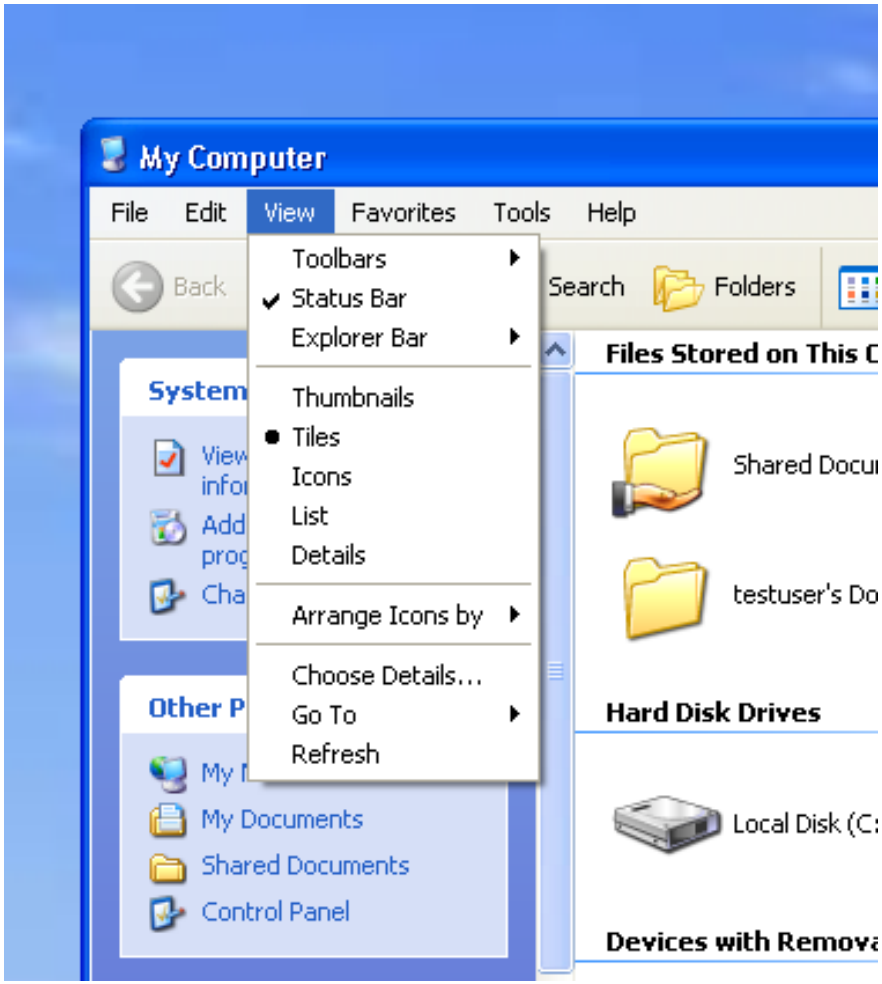
System Tasks
View system information
Add or remove programs
Change a setting
Other Places
My Network Places
My Documents
Shared Documents
Control Panel
Details
Files Stored on This Computer
Shared Documents
Hard Disk Drives
Local Disk (C:)
Devices with Removable Storage
3½ Floppy (A:)
5 objects
My Computer

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 806:
The "View" pull-down menu will be displayed:


My Computer
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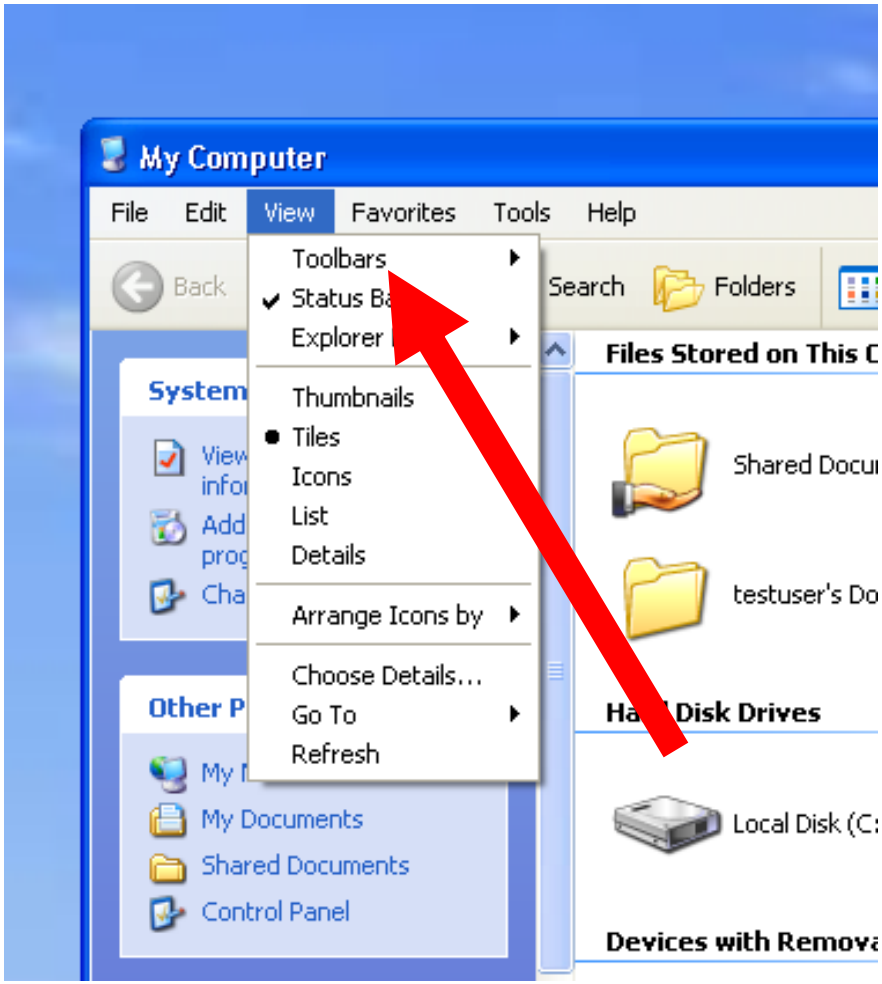
Devices with Remova

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 807:
Click on "Toolbars" in the "View" pull-down menu: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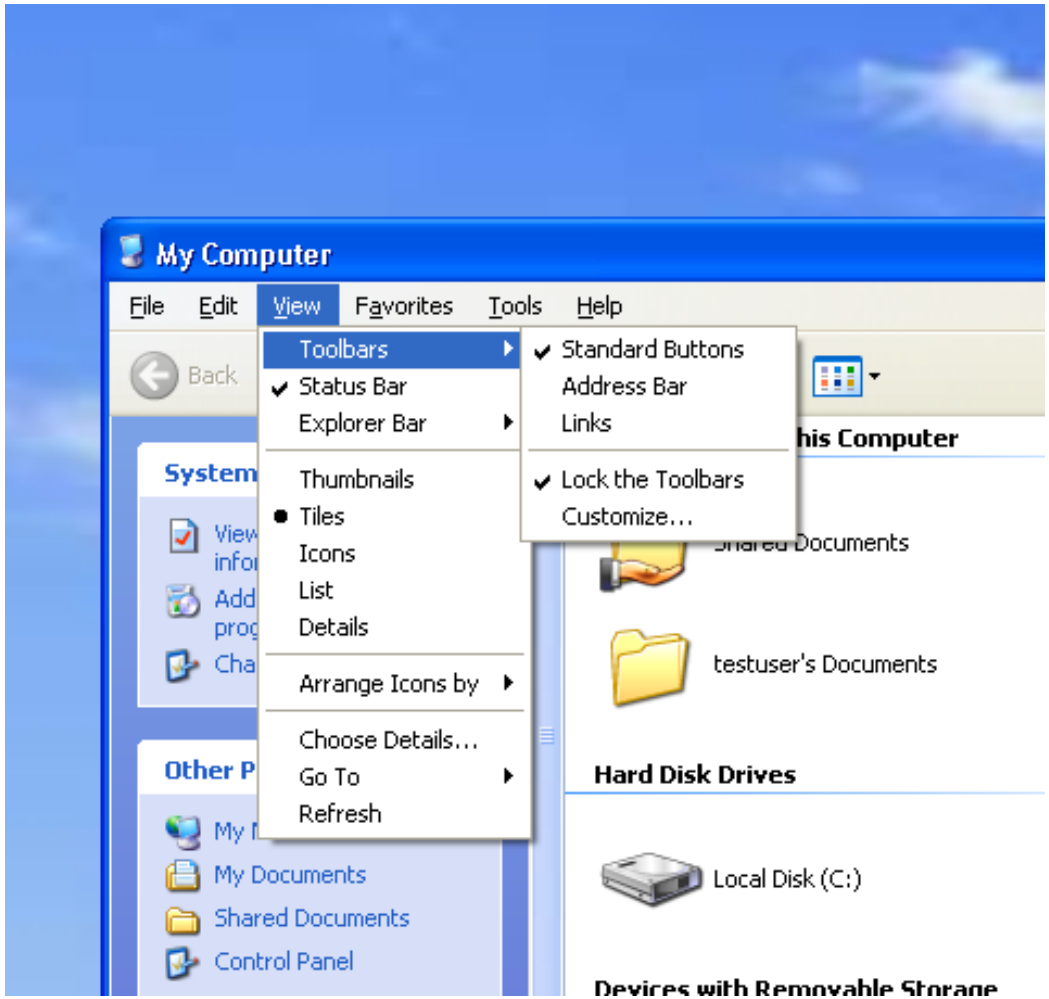
- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 808:
A pop-out menu will appear to the right of the "View" pull-down menu:


My Computer
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My Documents
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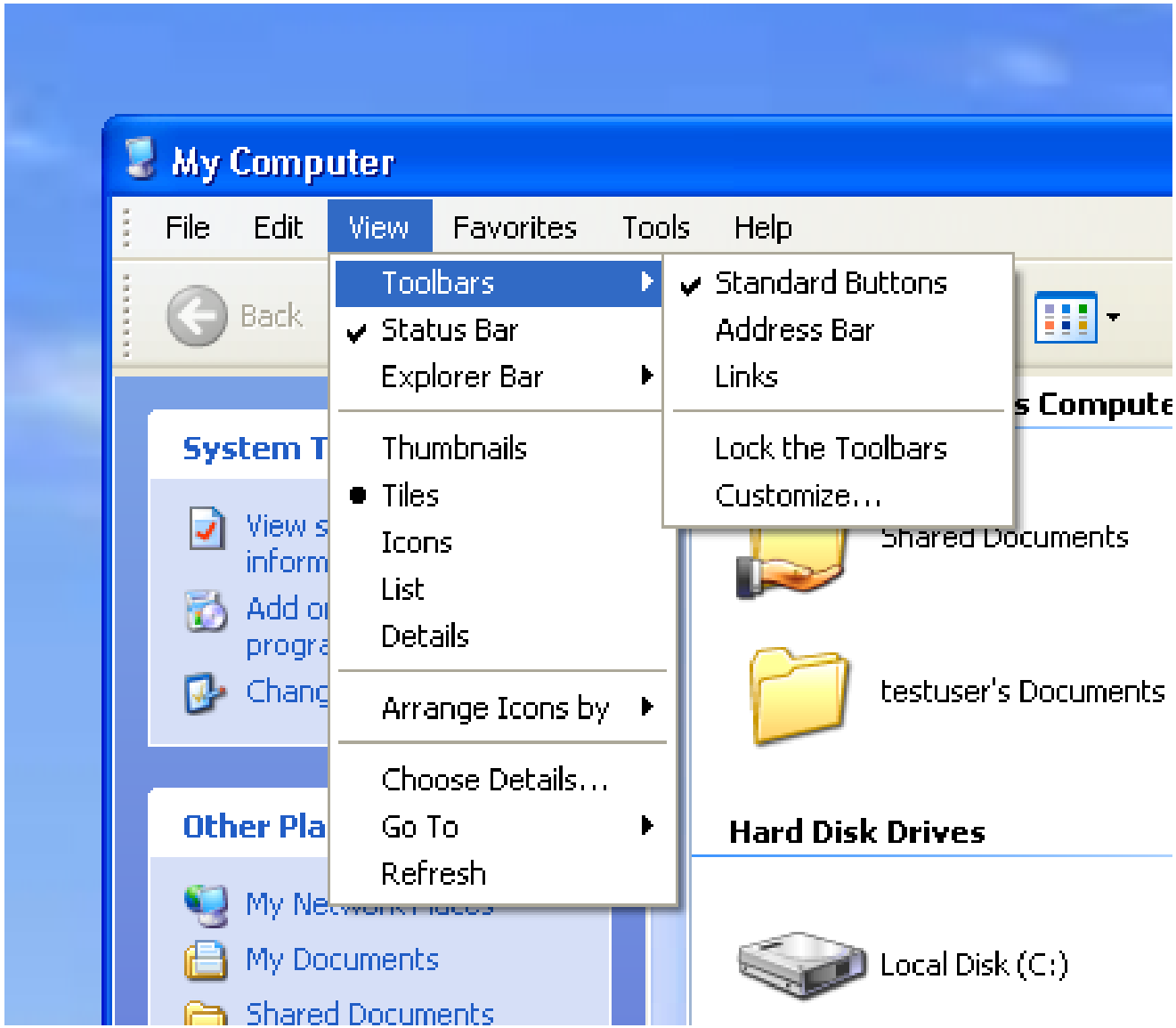
Control Panel
testuser's Documents
Hard Disk Drives
Local Disk (C:)

- Big Step 800:

From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 809:

Make sure that "Lock the Toolbars" in pop-out menu does not have a checkmark to the left of it. If there is a checkmark there, click on it to remove it: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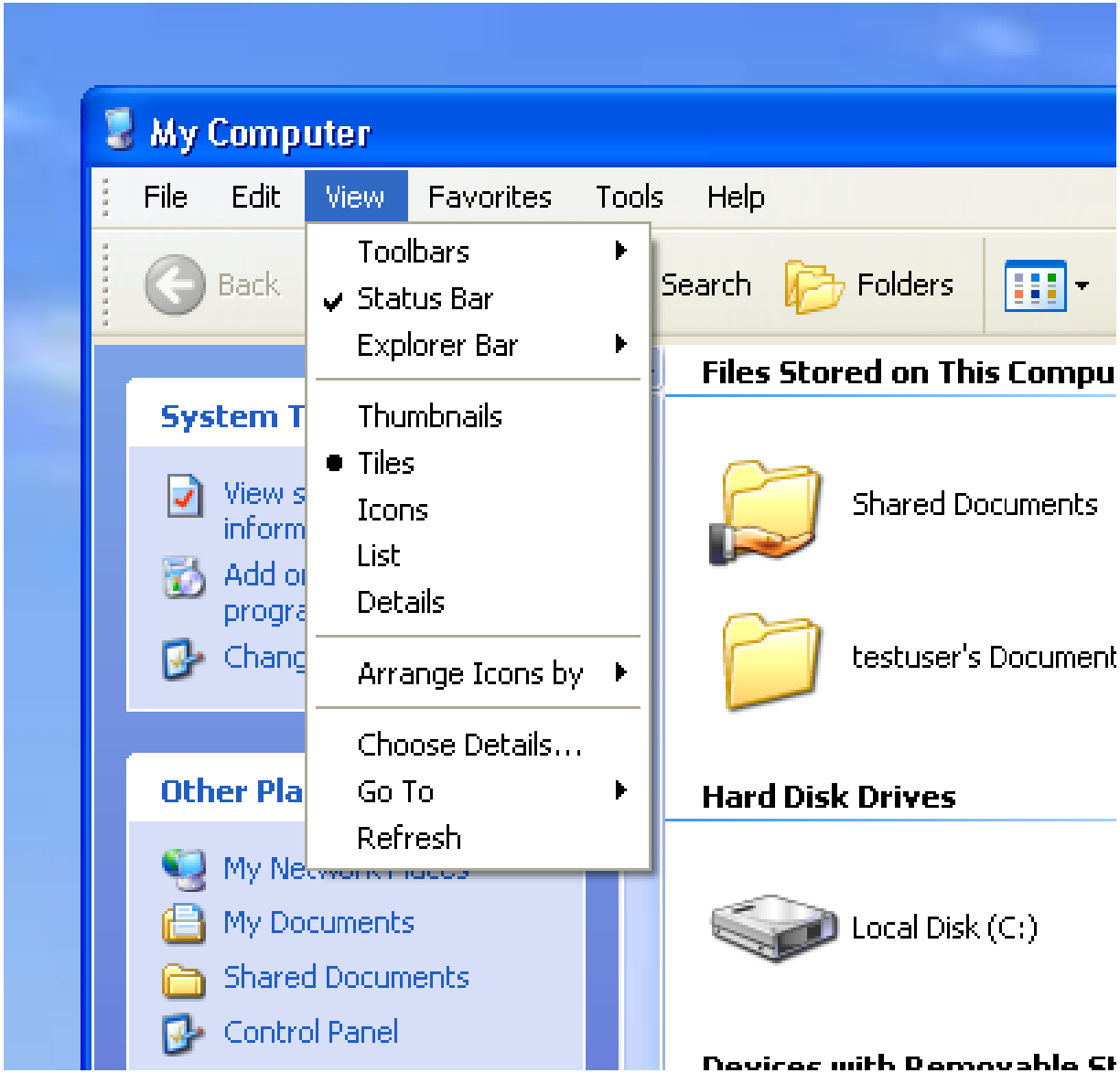
Hard Disk Drives
Local Disk (C:)

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 810:
Click on "View" in the pull-down menu bar:


My Computer
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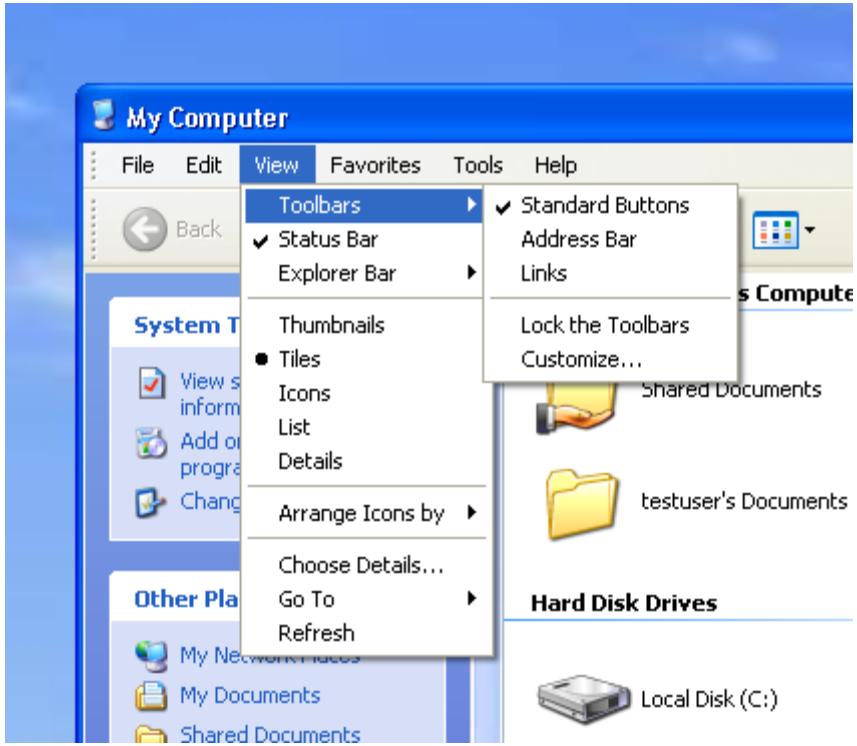
Shared Documents
Control Panel

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 811:
Click on "Toolbars" in the "View" pull-down menu:

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 813:
A pop-out menu will appear to the right of the "View" pull-down menu:


My Computer
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Explorer Bar
Thumbnails
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Arrange Icons by
Choose Details...
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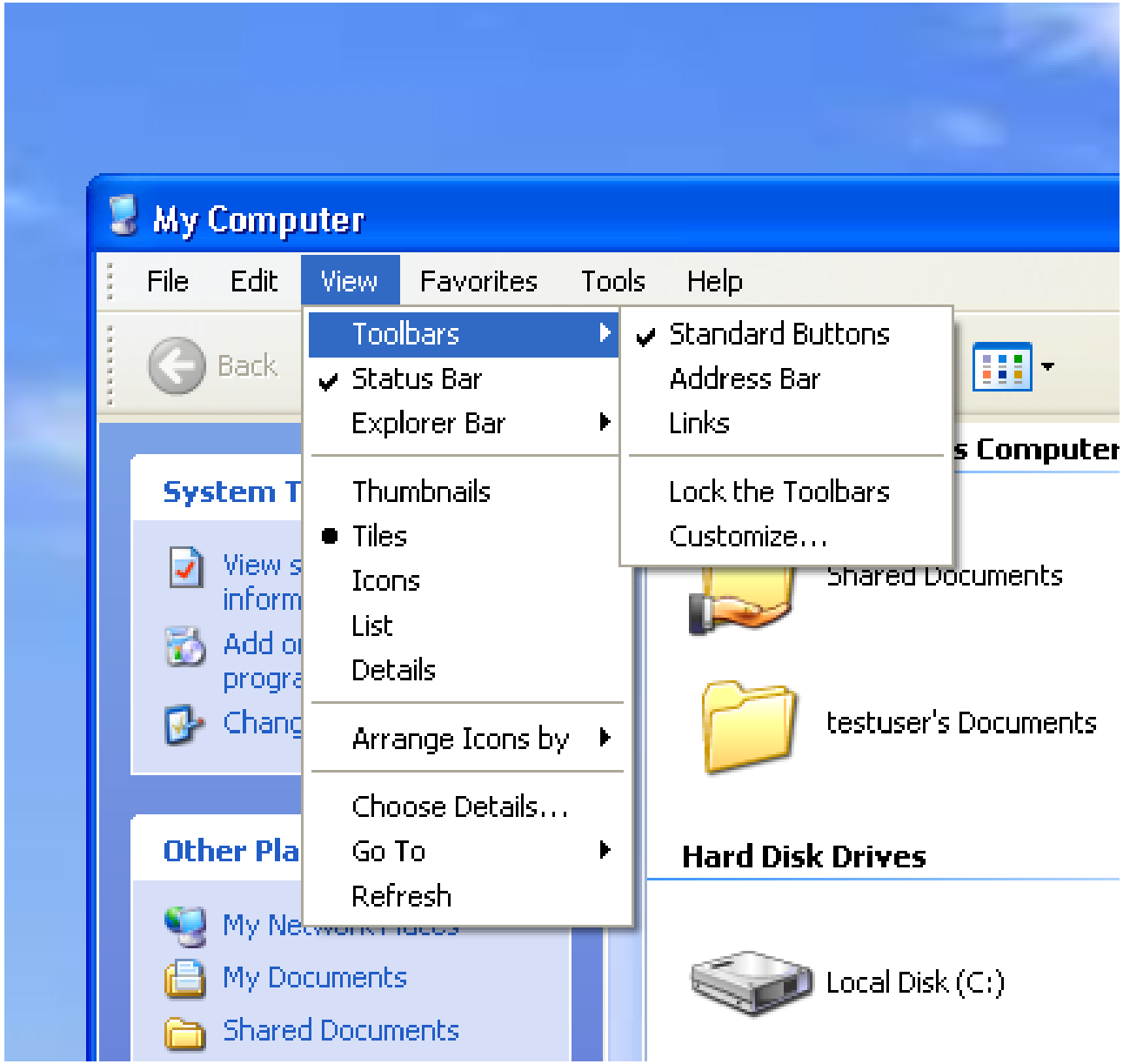
Address Bar
Links
Lock the Toolbars
Customize...
Shared Documents
testuser's Documents
Hard Disk Drives
Local Disk (C:)
My Documents
Shared Documents

- Big Step 800:

From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 814:

Make sure that "Address Bar" in the pop-out menu has a checkmark to the left of it. If there is no checkmark there, click on it to put one there: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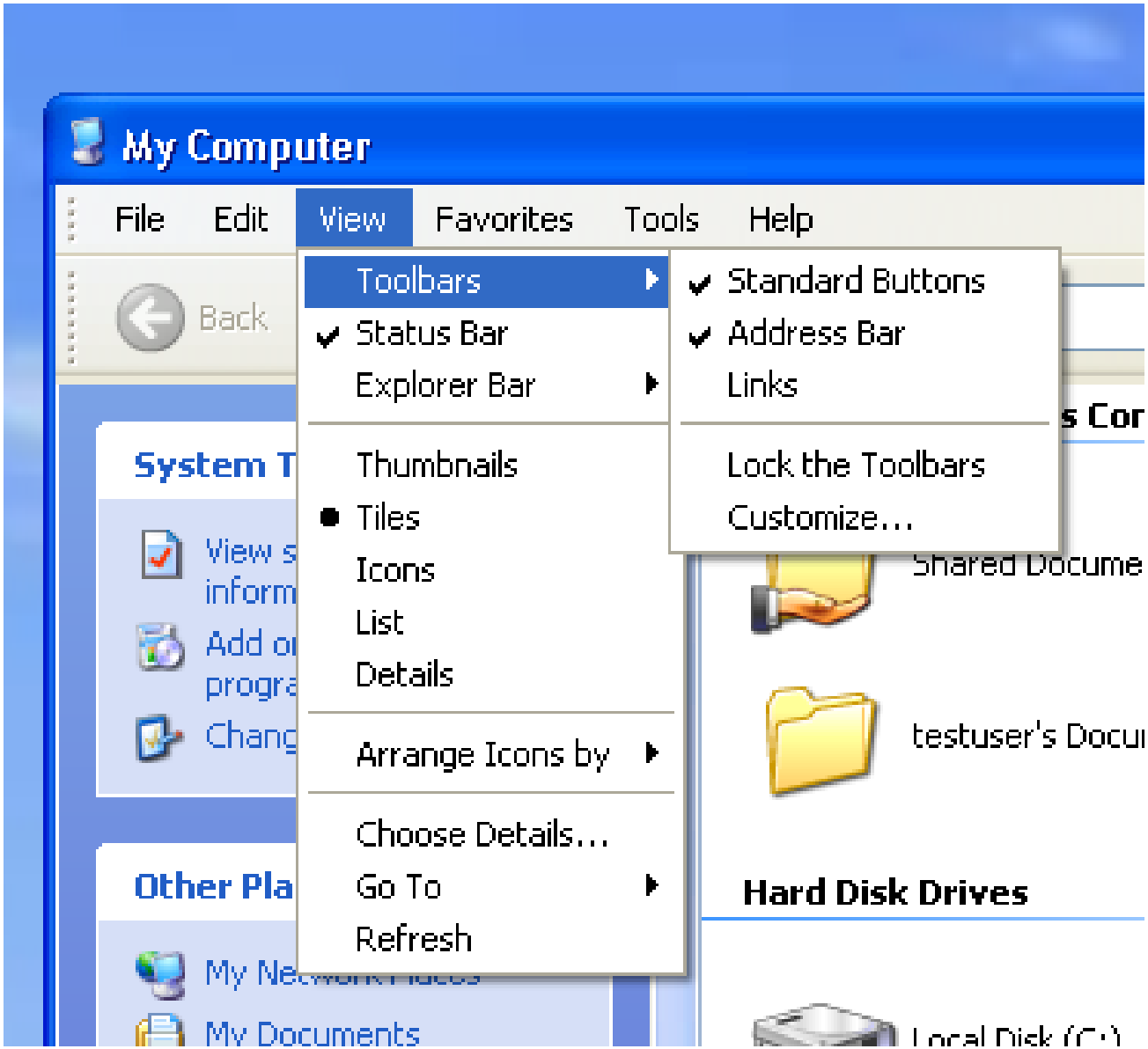
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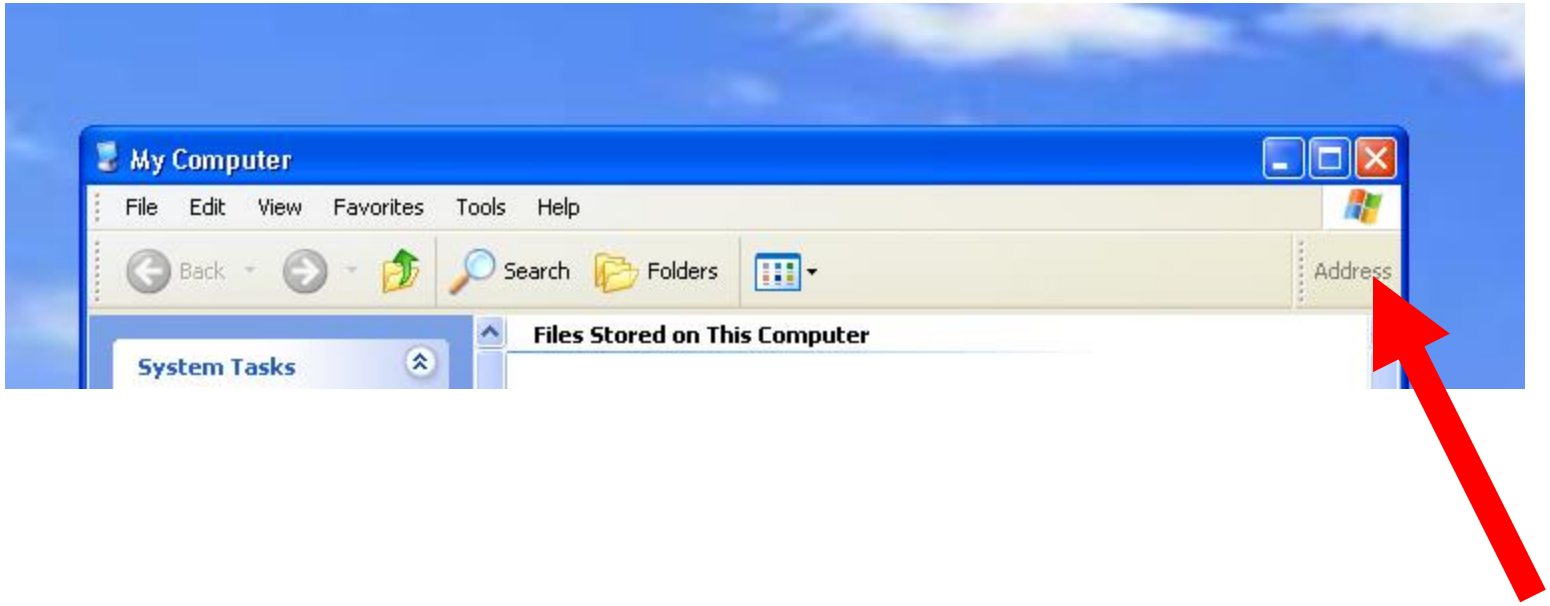
Hard Disk Drives

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)
- Step 815:
You might have to double-click on "Address" in the bar that is just below the "Menu bar" to display the "Address" field of the "Address bar"


My Computer
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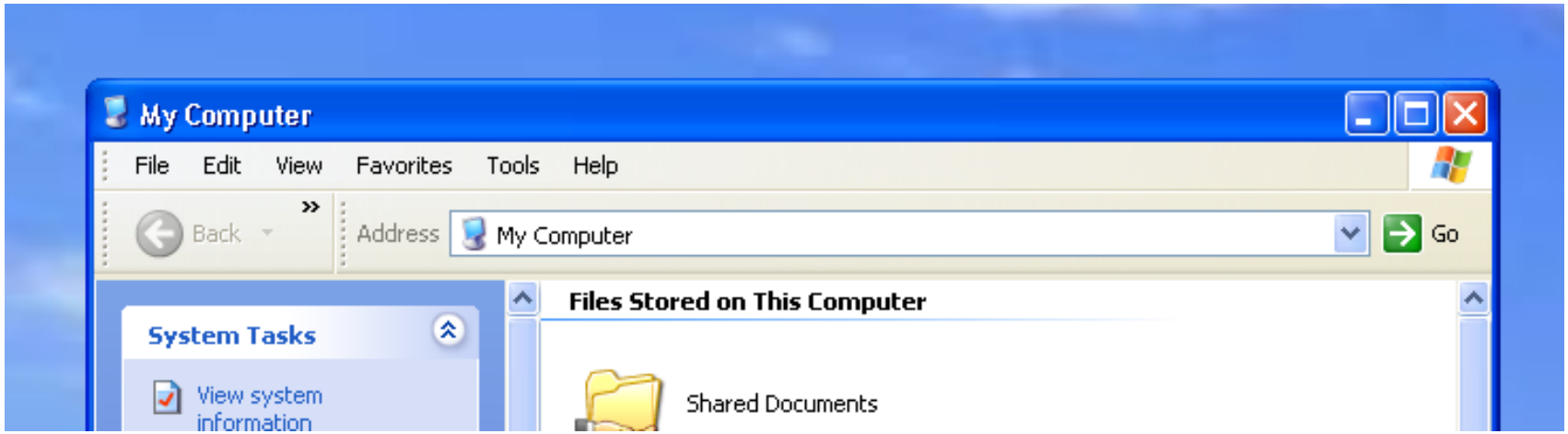
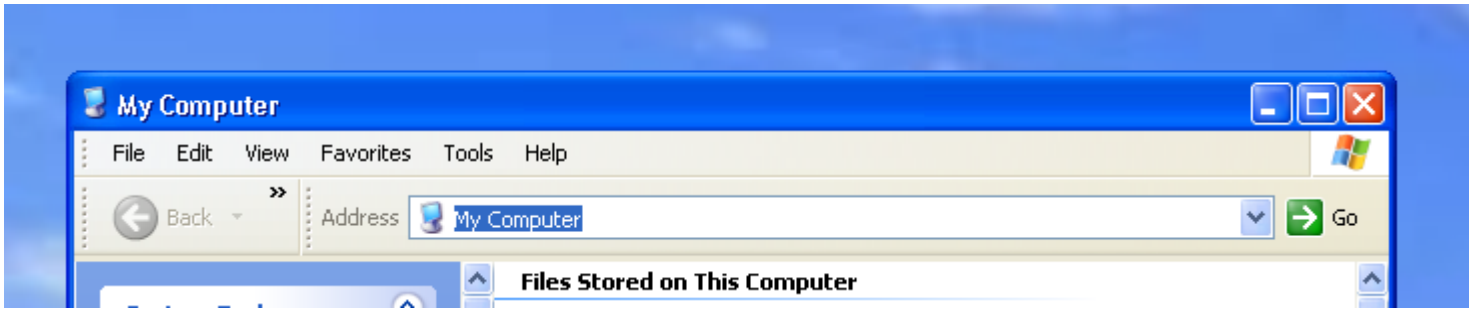
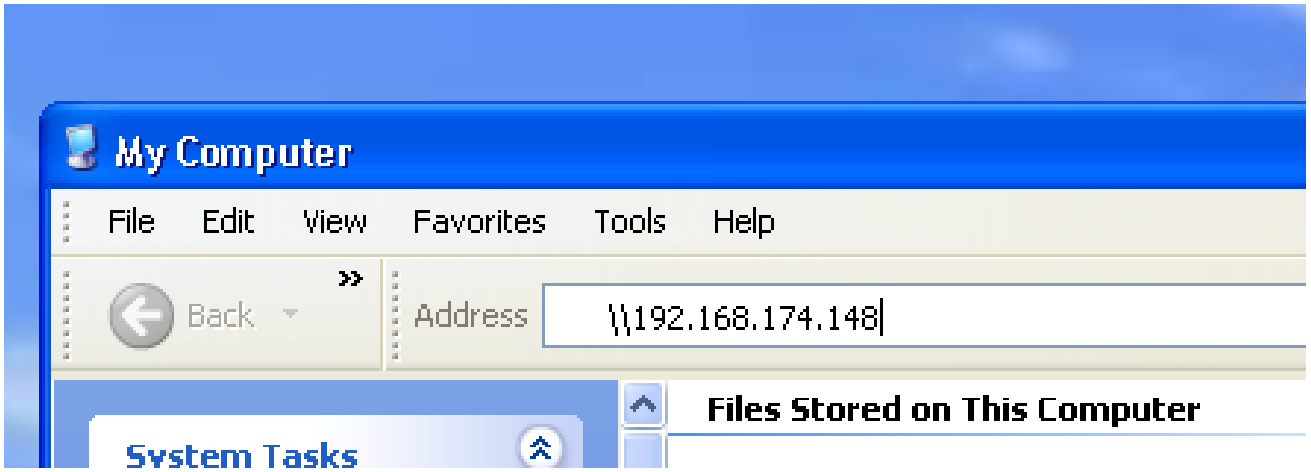

My Computer
File
Edit
View
Favorites
Tools
Help
Back
Address
My Computer
Go
System Tasks
View system information
Files Stored on This Computer
Shared Documents

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)
- Step 816:
Click once inside the "Address" field of the "Address bar"


My Computer
File
Edit
View
Favorites
Tools
Help
Back
Address
My Computer
Go
Files Stored on This Computer

- Big Step 800:
From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)
- Step 817:
Type in
\\<IP address of the Windows 1 computer>
inside the "Address" field of the "Address bar"


My Computer
File
Edit
View
Favorites
Tools
Help
Back
Address
\\192.168.174.148
Files Stored on This Computer
System Tasks

- Big Step 800:

From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 818:

Press the enter key of the keyboard

- Big Step 800:

From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 819:

Enter in a valid username and password for the "Windows 10" computer, if prompted to do so:


Connect to DESKTOP-32LSCSJ
Connecting to 10.228.103.193
User name:
Password:
OK
Cancel

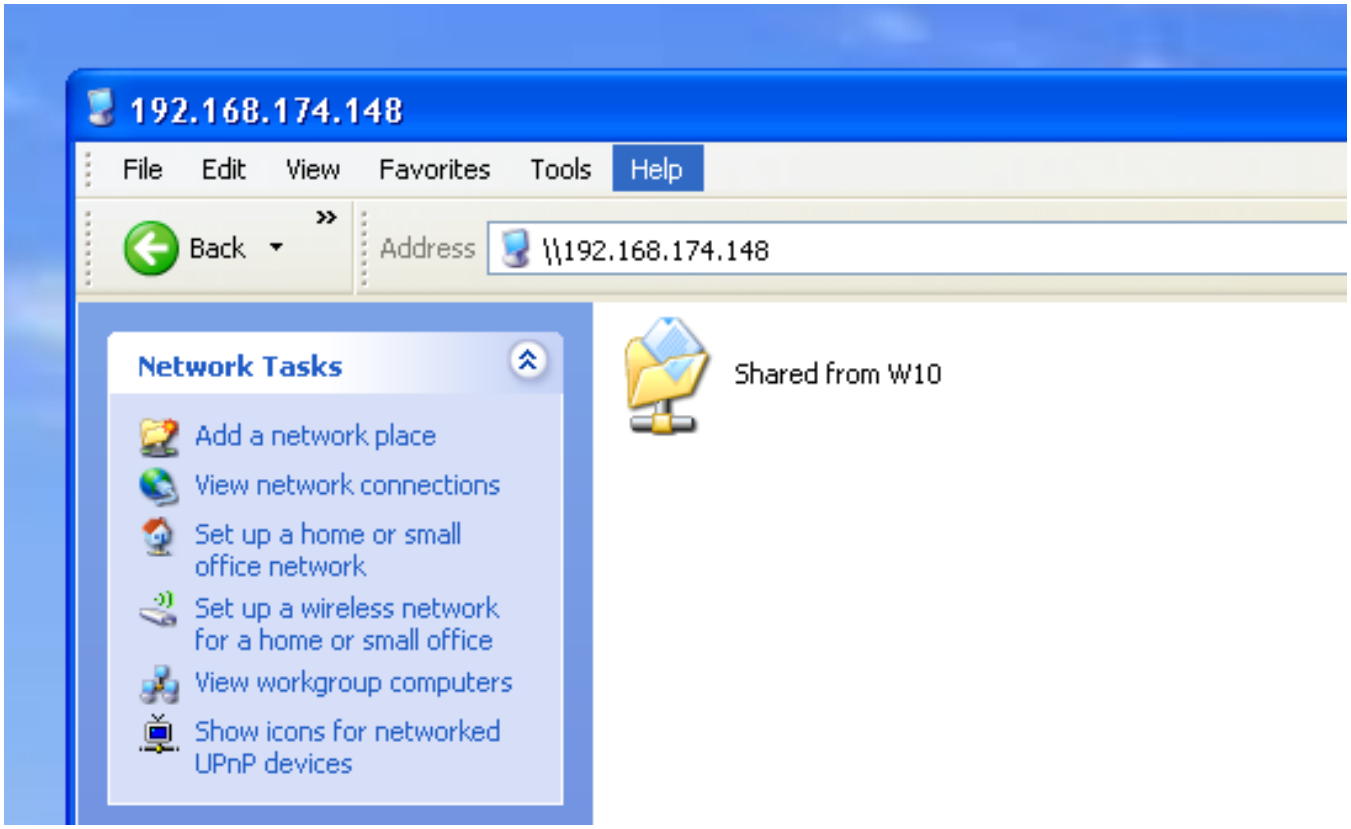

Connect to DESKTOP-32LSCSJ
Connecting to 10.228.103.193
User name:
testuser
Password:
OK
Cancel

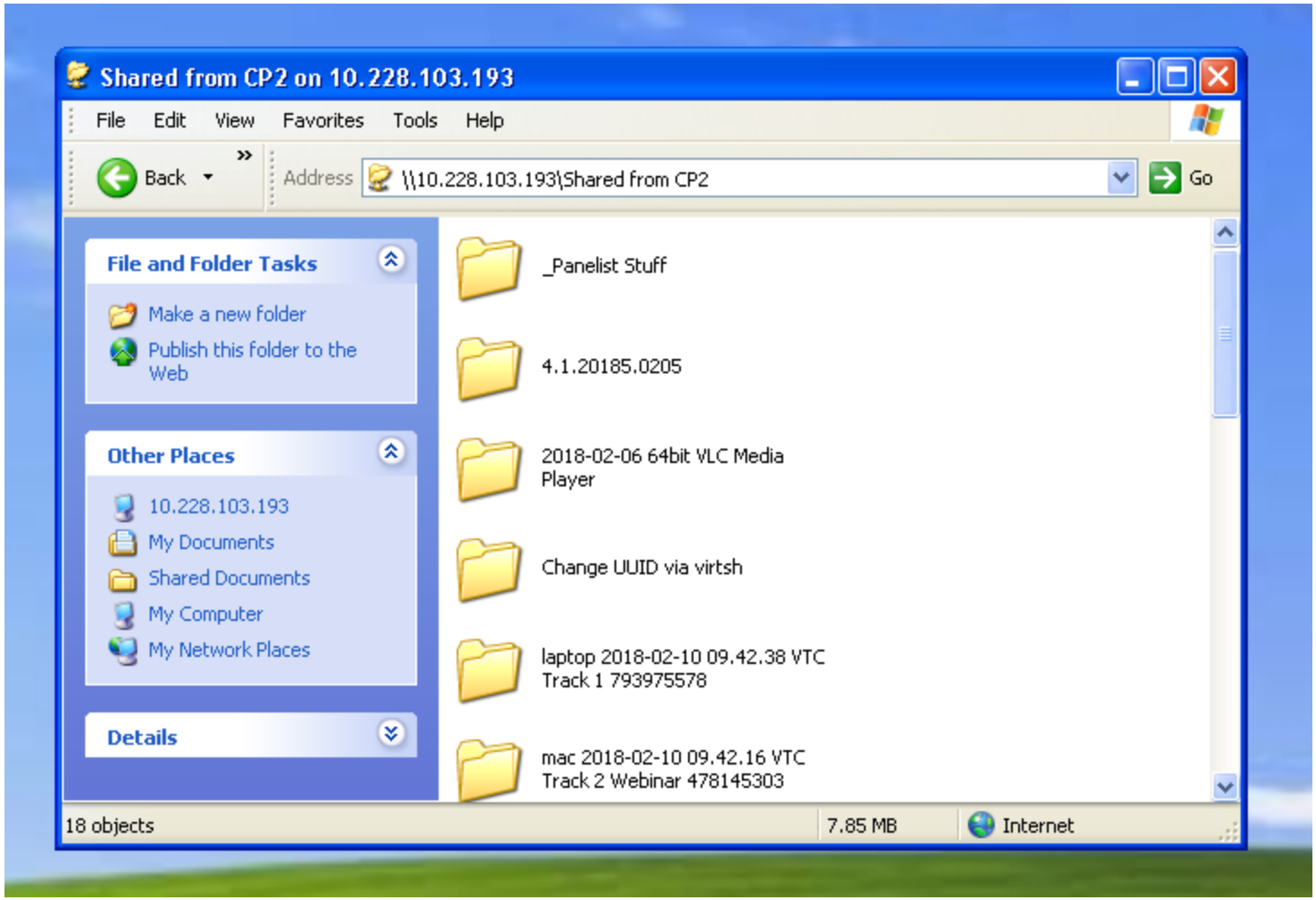
- Big Step 800:

From the client computer that needs to access the shared files, go to \\<private ip address of the computer that is sharing the files> (continued)

- Step 820:

You should now be able to use your Windows XP computer to access the shared files and folders in the Windows 10 computer:


192.168.174.148
File
Edit
View
Favorites
Tools
Help
Back
Address
\\192.168.174.148
Network Tasks
Add a network place
View network connections
Set up a home or small office network
Set up a wireless network for a home or small office
View workgroup computers
Show icons for networked UPnP devices
Shared from W10


Shared from CP2 on 10.228.103.193
File Edit View Favorites Tools Help
Back
Address \\10.228.103.193\Shared from CP2
Go
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Other Places
10.228.103.193
My Documents
Shared Documents
My Computer
My Network Places
Details
_Panelist Stuff
4.1.20185.0205
2018-02-06 64bit VLC Media Player
Change UUID via virtsh
laptop 2018-02-10 09.42.38 VTC Track 1 793975578
mac 2018-02-10 09.42.16 VTC Track 2 Webinar 478145303
18 objects
7.85 MB
Internet