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1 Terminal Services
Introduction

1.1 Overview

Furniture Wizard now makes it possible for you to connect several locations and share the same data (Figure 1) using Terminal Services. This is a feature built-in to Windows Server 2008 and 2012. Terminal Services enables the Furniture Wizard software to run on a server, and allows connected locations to remotely login over the Internet. Implementing a new server running Terminal Services is not a simple task; we highly recommend that you seek professional assistance in accomplishing this task.

Once the server has been properly installed and configured, you can install the Furniture Wizard software and then connect all of your remote locations. By utilizing some of the capabilities found in Terminal Services, you also use all of your barcode devices over the Internet, a first for retail furnishing software.
1.2 Technical Support

Furniture Wizard provides world-class support. Please contact us at:

New Vision Information Systems  
820 Starboard Street  
Chula Vista, California 91914  
Phone: (619) 869-7200  
Fax: (619) 869-7210  
support@furniturewizard.com

1.3 Publications

Your Furniture Wizard CD-ROM contains Acrobat PDF versions of all of Furniture Wizard’s documentation. The files are located in the Documentation subdirectory. Please contact your Furniture Wizard representative to order hard copies of publications.

For more complete documentation on Furniture Wizard’s many powerful features, please see the main manual, the Furniture Wizard User Guide (Furniture Wizard Users Guide.pdf).

1.4 Using this Manual

1.4.1 Assumptions

To successfully install and configure the various components required for proper operation of Terminal Services and Furniture Wizard, the person performing the installation you must have detailed knowledge of the following technical concepts:

- Microsoft Windows Server 2008 or Windows Server 2012 operating systems
- Terminal Services
- Networking setup and operation

Ideally, only a network technician or other trained technical personnel familiar with Windows Server and Terminal Services should perform the initial installation and setup of Terminal Services! Non-technical persons should not attempt this installation!
### 1.5 Guide Conventions

The following information provides a formatting key to help identify information as you navigate through this Guide:

<table>
<thead>
<tr>
<th>Example</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Click <strong>OK</strong>.</td>
<td>Within procedural (&quot;how-to&quot;) text, boldface words are characters you type or elements you can click. Within overview or conceptual text, bolded words may simply represent concepts that have been highlighted to emphasize their relative importance.</td>
</tr>
<tr>
<td>Go to the <strong>Add User</strong> page.</td>
<td>Within procedural text, numbered steps denote actions that should be followed in sequence.</td>
</tr>
<tr>
<td>Click <strong>Save</strong> to save your work. Click <strong>Cancel</strong> to exit without saving.</td>
<td>Within procedural text, bulleted text denotes available options. Within overview or conceptual text, bulleted text also denotes supporting information that is subordinate to the major topic being discussed in the Guide.</td>
</tr>
<tr>
<td>![Light Bulb Icon]</td>
<td>The light bulb icon denotes a helpful tip.</td>
</tr>
<tr>
<td>![Information Icon]</td>
<td>The information icon denotes reference material.</td>
</tr>
<tr>
<td>![Note Icon]</td>
<td>The note icon indicates definitions or considerations that help you understand the related task.</td>
</tr>
</tbody>
</table>
Installation and Configuration

2.1 General Overview

While we are unable to provide you with specific, step-by-step instructions on setting up your own server running Windows server 2008 or Windows Server 2012, we can give you or your network technician a general idea on how to proceed. You must use Windows Server 2008 or Windows Server 2012 as your server operating system (Figure 2); no other versions of Windows Server (for example, Windows NT Terminal Server Edition, Windows 2000 Server, or Windows Server 2003 Small Business Edition) support the capabilities required to properly use Terminal Services with Furniture Wizard.

![Windows Server 2008 and Windows Server 2012](image)

Figure 2: Windows Server 2008 and Windows Server 2012 Operating Systems compatible with Terminal Services

Your server must be equipped with a minimum of 8 GB of system RAM; however, use of more memory is highly recommended. It must be equipped with at least an Intel Core-based Xeon processor running at a minimum of 7200 RPM. Refer to Section 2.2 (Terminal Services Hardware Requirements) for a complete listing of the hardware required to run Terminal Services with Furniture Wizard.
2.2 Terminal Services Server Requirements

<table>
<thead>
<tr>
<th>As of 01/01/2015</th>
<th>Minimum</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel Core-based Xeon</td>
<td>&quot;Sandy Bridge&quot;-based Xeon or better</td>
</tr>
<tr>
<td>Ram</td>
<td>8GB (10 or fewer users)</td>
<td>16 GB+</td>
</tr>
<tr>
<td>Hard Drive Space</td>
<td>10 GB of available space</td>
<td></td>
</tr>
<tr>
<td>Hard Drive Type</td>
<td>7200 RPM drive</td>
<td>10k or 15k RPM Drives, or SSD</td>
</tr>
<tr>
<td>HD Controller</td>
<td>SATA</td>
<td>SATA or SAS Hard drives in RAID</td>
</tr>
<tr>
<td>Internet Access</td>
<td>DSL/Cable or faster, 256kb up/down minimum</td>
<td></td>
</tr>
<tr>
<td>Network</td>
<td>100mb wired network</td>
<td></td>
</tr>
<tr>
<td>Back Up Device</td>
<td>Flash Drives, alternated daily</td>
<td>USB Flash Drive, Removable Hard Drive</td>
</tr>
<tr>
<td>OS Edition</td>
<td>Foundation (max 15 users)</td>
<td>Standard</td>
</tr>
<tr>
<td>Licensing</td>
<td>Remote Desktop Services Client Access License (RDSCALs) for each user or device used for connecting to the server. Windows server Client Licenses are also required for each user or device (not required if using Windows server Foundation)</td>
<td></td>
</tr>
</tbody>
</table>

1. * Windows Server Foundation is recommended as a low-cost solution for stores that do not expect to have more than 15 users at any given time. Due to technical restrictions, more users cannot be added.
2. **Due to Microsoft Restrictions, Windows Small Business Server and Windows Server Essentials is not eligible to be used as a remote desktop server.
3. ***Due to compatibility issues with Server 2012R2, Dymo LabelWriter printers need to be installed on a print server device. Printing via RDS redirection does now work.

2.3 Connecting Remote Workstations

Once you have installed the server and the appropriate operating system, you can proceed with connecting your locations and placing them online. Each location needs to have either a broadband connection (such as DSL or a cable modem), or a special leased line (such as a T1 line provided by your telephone company). Your technician can help you select the preferable connection solution for your locations. Your main location (the one in which the server is installed) must contain a Static IP (Internet Protocol) address assigned by your Internet Service Provider; this is not a requirement for your secondary locations.
2.4 Installing Furniture Wizard on the Server

Before installing Furniture Wizard on the server, verify that your operating system has been configured to run Terminal Services in Application mode. This is the feature that will allow the users to login and interact with programs installed on the server.

- Your server **MUST** be configured to use Terminal Services in Application mode. If this setting is not enabled, you will be limited to only one connection, and re-installation of all programs will be required.

Once your network and server have been established, and all of your locations are online, you can proceed to installing Furniture Wizard. Going through the Add/Remove Programs Control Panel, begin the installer for Furniture Wizard. By default, Furniture Wizard is installed in the `C:\Program Files\Furniture Wizard` directory of the server. It is highly recommended to keep the default directory, because all released patches are designed for installation in this standard location. Changing the install location can result in confusion or problems with updates at a later date.

During installation, perform a **Full Install** of the program. Since the server will be both hosting the data and running the software, a full install will be required.

- When using Terminal Services in conjunction with Furniture Wizard (or any other software), you must always use the Add/Remove Programs function in the Windows Control Panel to install any piece of software!

- If installing the program on a server running Windows 2003 Server with SP1 or later installed, DEP (Data Execution Prevention) must be changed to “Turn on DEP for essential Windows programs and services only”, or add an exception for MSACCESS.exe

2.5 Preparing for Workstations

Each workstation that logs in to Furniture Wizard through Terminal Services needs to have its own users account. Each account will also require an associated copy of the `Wizard.mdb` file (the front end of Furniture Wizard). This is easily accomplished using the instructions contained in a later in this section of this document (refer to Section 2.7 for more details on the Furniture Wizard database).

- If you will be using a cash drawer of a Mini-scanner, you must also install the Furniture Wizard Terminal Services client on those workstations. If a workstation will not be using either device, it is recommended that the windows Remote Desktop Client be used instead. (see Section 2.10 for more details).

- Printer drivers will need to be installed for any printer that will be used to print from within Furniture Wizard. (see Section 2.11 for more details).
2.6 The Furniture Wizard Database

When operating the Furniture Wizard software using Terminal Services, you should have a good understanding of the main files used by Furniture Wizard. The program utilizes an Access database that contains three main files:

- **Wizard.mdb** - This is the main front-end file that contains all of the forms, reports and code. Each user gets its own copy of this file.
- **Wiz_data.mdb** - This is the file that contains your store’s data.
- **Custom.mdb** - This file contains the customized objects for your store.

### 2.6.1 Peer-to-Peer Network Operation

In a normal local (peer-to-peer) network, the Furniture Wizard software would be installed on each workstation; each workstation would have a copy of the **Wizard.mdb** file, and it would be stored in the local C:\Program Files\Furniture Wizard folder. When a new version of Furniture Wizard is downloaded and extracted, the Wizard.mdb is replaced by the newer version. When you run the new version of Furniture Wizard for the first time, only one user should be logged on. After the program has performed the Custom Object Import and has updated its tables, you would then perform the following steps:

1. Optimize the Furniture Wizard database by clicking **Optimize Program Database** in the Furniture Wizard Start Group.
2. The database should be also optimized – to do this, click the **Optimize Database** link in the Furniture Wizard Start Group.
3. The Wizard.mdb file would then be copied to all of the Workstations using functions within Furniture Wizard, or the update performed on each workstation

### 2.6.2 Running under Terminal Services

When running the Furniture Wizard software under **Terminal Services**, the software would not be installed on any of the workstations. Instead, the program would be run in a Remote Desktop (Terminal Services) session, logging into the server and launching that particular user’s copy of Wizard.mdb file (the front end of Furniture Wizard. Each of these files would reside in the same directory as the data. (see Figure 3).
2.7 Creating Multiple Database Copies

Now that you have installed Furniture Wizard, you need to make multiple copies of the Wizard.mdb file on the server, one for each user account. A quick and simple way to do this would be to use a script such as the one below to create several copies of this file. This script can be used to update Furniture Wizard for all workstations connecting via Terminal Services.

The scripts contained in this section are simply suggested samples; they should be individually modified to fit your specific business and operating requirements (such as path and computer names)!

2.7.1 Sample Script

The sample script below copies the files for a pure Terminal Services environment. If you plan to have workstations running Furniture Wizard over the local network instead of through Terminal Services, those computers would need to be updated individually.

```plaintext
@ECHO off
ECHO Please make sure that
```
This section creates copies of Wizard in your C:\Program Files\Furniture Wizard folder, one for each user. You must create a copy for each workstation logging in remotely via Terminal Services. In this example, the first 3 lines make copies of the Wizard.mdb file for three Terminal Services remote user workstations.

COPY "C:\Program Files\Furniture Wizard\Wizard.mdb" "C:\Program Files\Furniture Wizard\Wizard_User01.mdb" /y
COPY "C:\Program Files\Furniture Wizard\Wizard.mdb" "C:\Program Files\Furniture Wizard\Wizard_User02.mdb" /y
COPY "C:\Program Files\Furniture Wizard\Wizard.mdb" "C:\Program Files\Furniture Wizard\Wizard_User03.mdb" /y

This script can also be run anytime you receive an update to Furniture Wizard or a change to the store’s customization; it will update all of your computers at once. Be sure to name it something you can easily reference (for example, Update_Wizard.bat) and place it in the Furniture Wizard folder or the server’s desktop for easy access.

2.8 Furniture Wizard User Access
We highly recommend that the user accounts be set to automatically start up Furniture Wizard software instead of the normal desktop. This can prevent any unauthorized access to the server’s settings.

2.9 Configuring Workstation Properties in Windows
Your next step is to create all of your user accounts. Accounts can be created in either the Computer Management pane or through Active Directory Users and Computers if Active Directory is implemented. The user accounts created must be made part of the “Power Users” or “Administrators” group in the Members Of tab in order to have the proper permissions to all of the Furniture Wizard files. If Active Directory is configured on your server, you must make your users part of the “Server Operators” users group. You should also have one account setup for Administrator access, which would have full access to the Desktop. All user accounts must also be made part of the “Remote Desktop Users” group in order to be allowed to login via Terminal Services.
When creating these accounts, it is best if you do not give the user the ability to change their passwords; additionally, the password should be set to *never* expire.

Once complete, your final step will be to set the account to automatically start up Furniture Wizard when logging in, keeping the user from accessing sensitive areas of the computer. To give the user account the ability to start the Furniture Wizard software immediately after logging on to the server, do the following:

- Select the **Start the following program at log on** check box in the **Environment** tab of Workstation Properties. Note that when the user exits Furniture Wizard, they will also exit the Terminal Services connection.

- In the **Program File Name** field, enter the command line for starting up Furniture Wizard (shown below). This entire string should be inserted into the environment tab, with the last section referring to one of the copies of Wizard.mdb created earlier. This string can be copied from the Furniture Wizard icon on your desktop.

```
"C:\Program Files\Microsoft Office\OFFICE11\MSACCESS.EXE" /runtime
/excl "C:\Program Files\Furniture Wizard\Wizard_User01.mdb"
```

In the example above, replace "C:\Program Files\Furniture Wizard\wizard_User01.mdb" with the correct copy of Wizard.mdb to be assigned to that user.
If you have your copies of the Wizard.mdb file ending with the name of the user account they are to be associated with, you can use the %USERNAME% variable instead of specifying the name individually on each user account. Thus, the following could be used for each user account.

"C:\Program Files\Microsoft Office\OFFICE11\MSACCESS.EXE" /runtime /excl "C:\Program Files\Furniture Wizard\Wizard_%USERNAME%.mdb"

Figure 7: Workstation Properties - Environment Tab
Enter the command line string used to start up Furniture Wizard
2.10 Installing the Furniture Wizard Terminal Services Client

If you plan on using a cash drawer of a Mini-scanner on some of your workstations, you must also install the Furniture Wizard Terminal Services client on those workstations. If a workstation will not be using either device, it is recommended that the Windows Remote Desktop Client be used instead.

Now that you have your server configured for Terminal Services, you can proceed to installing the Terminal Services client on your remote locations. The Furniture Wizard Terminal Services Client can be found in your Furniture Wizard CD, or from our website.

1. To begin, launch the installer from the Furniture Wizard CD or download the installer from our website, and run it.

2. When the next Wizard Terminal Services Client - Install Shield Wizard dialog appears, click Next.

3. In the next Installation page, enter the user name and organization and specify the user for which the application is being installed. Select Anyone who uses this computer option - this ensures that the Terminal Services client will work with all local user accounts. When finished, click Next to continue the installation process.
4. In the next Installation screen, specify the type of installation being performed. You should select the **Complete** option to install all required files in their proper locations, and then click **Next** to proceed to the next Installation screen.

---

**Figure 9: Terminal Services Install Shield Dialog (Second Screen)**

**Figure 10: Terminal Services Install Shield Dialog (Second Screen)**
5. When the final Install Shield dialog appears, click **Install** to begin installation of the Cipher Scanner Agent and associated files. When all files are installed, click **Finish**.

![Wizard Terminal Services Client - InstallShield Wizard](image)

**Figure 11: Terminal Services Install Shield Dialog (Final Screen)**
2.11 Setting Up Terminal Services Printing

Before you can print via Terminal Services, the driver for your printer must be installed on both the workstation to which the printer is attached, and on the Windows 2003 Server.

- If possible, install the printer using the Add New Printer Wizard
- When using the Add/Remove Control Panel, it verifies that the software is properly installed to work from within Terminal Services.
- During installation, when asked to specify how the printer is connected to the computer, select **LPT1 Printer Port**. If the printer does not have its own installation program, you must use the Windows **Add Printer** wizard. This step can be skipped if you have a printer for which Windows already has a built-in driver.

Once the printer driver is installed on the server, the printer must be connected to the remote workstation. Printers should be connected to the LPT1 port on the computer whenever possible, because problems may arise in connecting printers to the USB port on a computer. If a USB printer is used, the printer must be shared in order to work properly. USB-only printers, such as the Dymo LabelWriter printer and the Star Micronics 613-U Receipt Printer have been tested to verify that they work properly when used with Terminal Services.

2.11.1 Setting Up Printers for Use With Terminal Services

To be able to print remotely with Furniture Wizard via Terminal Services, you must properly install the same Printer Driver on both the Windows Server 2008 and the workstation. The printer connected to the workstation should be connected to the LPT printer port whenever possible.

1. You should use the Windows 2008 Server Add Printer Wizard to install the printer. To do this, select **Local Printer** and clear the **Automatically Detect and install my Plug and Play Printer** check box.

![Figure 12: Add Printer Wizard (First Screen)](#)

2. On the next screen, select **Use the following port** and the select **LPT1: Printer Port**.
3. On the next screen, select the manufacturer and printer model. If you are asked whether you would like to keep the existing driver, click **Yes**.
4. If you are asked whether you would like to keep the existing driver, click Yes. You are now asked to name the printer. Please use a short name, such as an abbreviation of the printer’s name.

![Add Printer Wizard](image)

**Figure 15: Add Printer Wizard – Name Your Printer**

5. You can now finish using the Printer Wizard. Select No when asked to print a test page.

When your user logs in, the Terminal Services client will automatically detect the printer connected to your computer. To configure it in Furniture Wizard, so the following:

1. Start up Furniture Wizard, double-click on the picture of the wizard to access the **Setup and Registration** function, and then click **Form Print Setup**.
2. In Form Printer Setup, Furniture Wizard will have automatically selected the printer(s) connected to your computer. If you need to change the selected printer, simply select the correct printer from the drop-down menu. The printer should be displayed as 

"[Printername] From [Computername] In Session [SessionNumber]" if you have a Windows 2003 Server. For example, it would be displayed as 1100 From Joel In Session 2 (Figure), where:

- **1100** is the printer name.
- **JOEL** is the computer name.
- Session 2 is the current Terminal Services session being used.
3. Next, restart Furniture Wizard and double-click the Wizard icon on the Main Menu.

4. Select the **Form Print Setup** button and assign the printer names to their respective documents. The complete Printer Setup instructions are available on the Furniture Wizard Support site.
2.12 Registering Furniture Wizard for Use with Terminal Services

The first time you connect via Terminal Services from each user account, Furniture Wizard prompts for entry of the license key. This key would have been provided to you by Furniture Wizard Technical support upon your purchase of the Terminal Services Upgrade.

**Important Note:** You must enter the License Key Code *exactly* as instructed by Furniture Wizard Technical Support!

![Figure 11: Furniture Wizard Terminal Server License Manager]

*Figure 11: Furniture Wizard Terminal Server License Manager*