



Running and Installing NEMRC in Win Peer to Peer, or 2003/2008 server environments

2008 server follows similar guidelines, including 64-bit server

Revised: Sept, 2011

Minimum Requirements:

- XP Pro or Windows 7 Pro workstations preferred at this point, adequate RAM (1GB +), 10/100 NIC minimum, Gig preferred, adequate drive space – 30 GB for NEMRC should be adequate for the lifetime of the system.
- Vista and 2008 Server will support NEMRC applications. UAC may need to be turned off. Windows 7 32 bit and 64 bit will support NEMRC. Again, Pro version is recommended. Electing to 'Run As Administrator' on installers is recommended. Windows 7 Maintenance features should be turned off to avoid missing desktop icons. See: <http://support.microsoft.com/kb/978980> for more info.
- Server hardware platform – NEMRC is compatible with 2000 Server, 2003 Server, 2008 Server, all versions.
- Users need 'Full' rights to the NEMRC/MSOL share and folder.
- It is possible to set up a user with only list and read privs for read-only rights to reports etc. Users set up this way should have a restricted password for NEMRC which can be modified in the NEMRC Password Maintenance menu for reports or lookup menus only.
- Antivirus product. Prefer no "Internet Security" bundled products such as Norton "Internet Security", McAfee "Internet Security", etc. Norton 360 or other top-heavy products. Preferences for: straight Antivirus product, with a freeware Spyware product or Windows Defender, Windows Firewall. Symantec Enterprise Security is OK. With the following conditions for any antivirus product:
 - 'Real-Time' or on demand antivirus scan exclusions on all network drives. Some antivirus apps require specific path added to the \NEMRC and \CAMA folders
 - Firewall program exclusions for NEMRC apps
 - LAN trusted in firewall
 - Norton antivirus needs 'Smartscan' turned on workstations and server.
 - In some cases, Norton's Intermediate filter driver in LAN adapter properties should be unchecked.

- Powersave features should be OFF (default) on server, or peer to peer workstations (not default), and workstations.
 - NIC card power save features Off. (Device Manager, Driver Properties, Power Save Settings).
 - Power save features off – especially drives, to prevent network disconnects
- No Wireless LAN networking for NEMRC apps. Wireless does not currently perform adequately for database function over LAN, nor is it particularly secure even if encrypted.
- No VOIP over LAN w/ NEMRC unless Gigabit throughout net, and/or use of a Vlan to segment bandwidth for VOIP as separate from data. Test with NEMRC prior to going to production with the new server.
- If the users run NEMRC disaster recovery agreement or off-site backup using a scheduled task on a server, this task needs to be set up on the new server. **ASK the Client if they run NEMRC off-site backup or disaster recovery!** Check the Task Scheduler on old server for scheduled task settings. Contact craig@nemrc.com for a document on how to set this task up. You will need the Foxpro runtime files installed on the server for this task to complete, and the General Config section below has the instructions on how this is installed on server.
- Roaming profiles can cause trouble with NEMRC. Avoid if at all possible.
- Disk quotas for the purposes of NEMRC should be disabled. NEMRC Data and backups locally can well exceed 10GB of storage, depending on the size of the municipality, and storage flexibility is required.

General Config:

- The \NEMRC and \MSOL folders need to be on the same directory level. Where MSOL is Microsolve appraisal software, which is used by listers and is linked to NEMRC. IE.
 - \APPS
 - \NEMRC
 - \MSOL
- Apps folder shared as N: across the network, even on local 'server' peer workstation system. Drive letter is up to the client. No requirement, except that it be consistent across network, and the host system also be mapped as workstations in Peer to Peer environments.
- No local workstation NEMRC .exe files – rename all .exe files from local system to *.exe.sav, leave data, rename workstation folders to nemrc.old
- No workstation scheduled tasks for Disaster Recovery Backups. Schedule task only on server.
- Foxpro runtimes installed on all workstations from www.nemrc.com/winrele/getbase.zip
 - Uncompress all files and run the .bat file. Install to c:\nemrc folder. After install completes, if this is a workstation, then next delete the c:\nemrc folder, as data will be stored on network drive, local folder is unnecessary. Getbase runs winbase.exe which is the runtime installer, which registers dlls and that's about it.
- Workstation user profiles/usernames best defined as functional titles such as FinanceDir, or Clerk etc, so that if staffing changes, the profiles can be maintained, minimizing setup time. Also

- the Windows Profile name is used by NEMRC reports, so it is helpful to have a functional title on the report. Usernames of less than eight characters also helpful for reports.
- NEMRC prefers PCL5 drivers over PCL6. If no pcl5 drivers, try universal pcl5 driver, or an emulation driver like Laserjet 5P or Deskjet 500 for ink.
- PCAnywhere 10.5 or later is used by NEMRC for remote support, and should be installed on key workstations. 12.5 required for Win 7/Vista systems. NEMRC can resell PCAnywhere at cost. \$99.00 Contact craig@nemrc.com to order.
- Run the utility *fontsetup.exe* in the working NEMRC folder to register NEMRC fonts and .dll files. It may be necessary to run this as administrator in Win 7/Vista environments. Refer to section of this document on manually registering fonts and .dll files if necessary

For NT and 2003 based server systems, including Windows 2008 servers:

The following changes are recommended in all Windows server environments.

There can be performance issues having to do with opportunistic locking of open files by both Foxpro and Windows o/s.

For clients running NEMRC, and reporting the workstation reporting the following types of errors:

The file is in use

The file is already open

Unable to write to drive X:

The network drive X: is no longer available

Invalid seek offset

OR – NEMRC hangs with multiple users in the application at one time. **OR** – users complain that NEMRC is slow:

Windows peer to peer networking environments, or in workstation to domain server situations, note that:

While written as a windows app, NEMRC's Foxpro 6 database platform is xbase, so Microsoft considers this a 'DOS' database sub-system. Microsoft refers to xbase as 'DOS' style database due to its heavy concurrency of file use, and its database engine. Xbase uses its own record locking system which is different from and sometimes delayed by Microsoft's file locking system.

Note that the registry edits refer to the server service, which runs on both server and workstation, so both should be modified and rebooted

The file **vfp_performance.reg** in the working NEMRC folder can be run to install the following registry edits, as well as other mods which we have found to be helpful.

For the registry edits to be used, see:

<http://support.microsoft.com/default.aspx?scid=kb%3ben-us%3b219022>

1. Start Registry Editor (Regedt32.exe) and go to the following subkey:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\LanmanServer\Parameters

2. On the Edit menu, click **Add Value** and add the following:

Value Name: EnableOplocks

Data Type: REG_DWORD

Data: 0

Value Name: CachedOpenLimit

Data Type: REG_DWORD

Data: 0

Value Name: autodisconnect

Data Type: REG_DWORD

Data: ffffffff

3. Shut down and restart the computer.

Perform all three modifications on both the file server and the workstations. Reboot all after the modifications.

Manually Registering Fonts and .dll files in Windows Systems for NEMRC

Symptom: Error message in NEMRC or CAMA indicating a given .dll needs to be registered. OR Fonts for barcodes or reports appear to be missing or non-functional.

Make a note of the .dll which is in need of registration from the NEMRC error screen. If one .dll needs registering, it probably makes sense to register them all.

The following .dll files may need to be registered in the working \NEMRC folder:

resi_update.dll	(linked to cama)
comm_update.dll	(linked to cama)
condo_update.dll	(linked to cama)
comctl32.ocx	(linked to cama)
duzactx.dll	(used to download state data in NEMRC.)

1. Before the steps below are attempted, try using the utility in the working \NEMRC folder called:

Fontsetup.exe

Run the application and complete the install. This will register .dll files and install fonts.

Test NEMRC to see if error has been resolved.
2. If this is a Windows 7 or Vista system, you will have to right-click, and Run as administrator.

To manually register fonts:

1. It may be possible to right-click on each .ttf file in the \NEMRC folder and select Install.
2. It may require copying *.ttf to the c:\windows\fonts folder if this is not successful.

To register .dll files:

XP

1. Open a command window.
2. Select Start Menu, Run, enter CMD in box, and OK to launch.
3. Navigate to NEMRC directory.
4. Knowledge of DOS commands is useful. See:
http://en.wikipedia.org/wiki/List_of_DOS_commands
5. Once in NEMRC directory, type:

Regsvr32 *nameofdll.dll* <Enter>
6. Dir *.dll <Enter> will provide a list of available .dlls to register. The list at the top of this document are the only .dlls that need to be registered.

7. Test by running the NEMRC app in question again to see if error resolved.

Vista and Windows 7 32-bit

Determine your operating system by selecting My Computer, right-click, Properties menu.

1. Open an Administrative command prompt. On the Start Menu, search field at the bottom of the menu, type cmd. This will generate a list of files, with one that is a black window. Right-click on this and select Run As - Administrator.
2. Screen will dim and you will get a confirmation prompt to continue. Select Yes.
3. A window will open and you will see a normal command prompt and the title for the window will include the text: Administrator: Command Prompt
4. Navigate to NEMRC directory.
5. The Administrative user may not have a drive mapped to the same folder as the 'normal' user does, so you need to map a drive at the command line.

- a. Open My Computer
- b. Look at the drive mapping for network drives.
- c. Look at the properties for a NEMRC shortcut to confirm the drive letter and path to NEMRC.
- d. In My Computer, make a note of the components of the drive mapping. If it says: Apps (Server) (N:), you have the information you need to map a drive, where
Apps = sharename
Server = hostname
N: = drive letter
- e. At the command line, type a command:
net use 'driveletter': [\\hostname\sharename](#) <Enter>

Example: net use N: [\\server\apps](#)

There is a space between N: and \\

If the command completes successfully, you can navigate to NEMRC folder.

6. Knowledge of DOS commands is useful. See:
http://en.wikipedia.org/wiki/List_of_DOS_commands

7. Once in NEMRC directory, type:

```
Regsvr32 nameofdll.dll <Enter>
```

8. Dir *.dll <Enter> will provide a list of available .dlls to register. Not all .dlls are register-able, but the computer will tell you if it cannot be.

9. Test by running the NEMRC app in question again to see if error resolved.

64 bit Windows 7 or 64 bit Vista

The above instructions apply. However, the NEMRC applications need to be registered with a 32 bit regsvr32 application. This is found in:

C:\windows\syswow64

Therefore, step 7 (above) will look like this:

```
C:\windows\syswow64\regsvr32 nameofdll.dll <Enter>
```