

Technical Bulletin – One-Minute NMR™ Computer Prerequisites

PC

- Windows XP Professional
 - All Service packs and all updates must be current from Microsoft Update
 - Additional Windows components must be installed
 - Indexing Services
 - Internet Information Services (IIS)
 - Management and Monitoring Tools
 - Message Queuing
 - Other Network File and Print Services
- 512 MB of RAM or more (1GB recommended)
- 1.6 GHz processor or better
- Two available RS232 ports (or two available USB ports with serial port adapters)
- A CD read/write drive is requested (not required)

Monitor

- Graphics resolution of 1280 x 1024 or higher
 - Recommend 19” LCD flat screen

Keyboard, Mouse

- Microsoft compatible corded keyboard and mouse (*not* wireless)

Software Configuration

- Access to Administrative account necessary
- Microsoft .NET Framework 1.1 or higher necessary
- Antivirus software
 - Recommend standard McAfee (not Corporate edition)
 - One-Minute NMR software is compatible with corporate edition anti-virus software, but the corporate editions on occasion can interrupt the network communication between the PC and NMR console computer.

Intranet/Internet

- Internet network adapter (for Cat5e cable) with active Intranet or Internet connection to NMR console computer (must be able to ping NMR console computer IP address from PC)
- Fixed IP address or domain name for PC. Protasis will configure the computer on-site. (Connection is through network, not peer-to-peer)
- E-mail account dedicated to One-Minute NMR, to send alerts and completion notices. (Can use hotmail or other external e-mail server if desired)

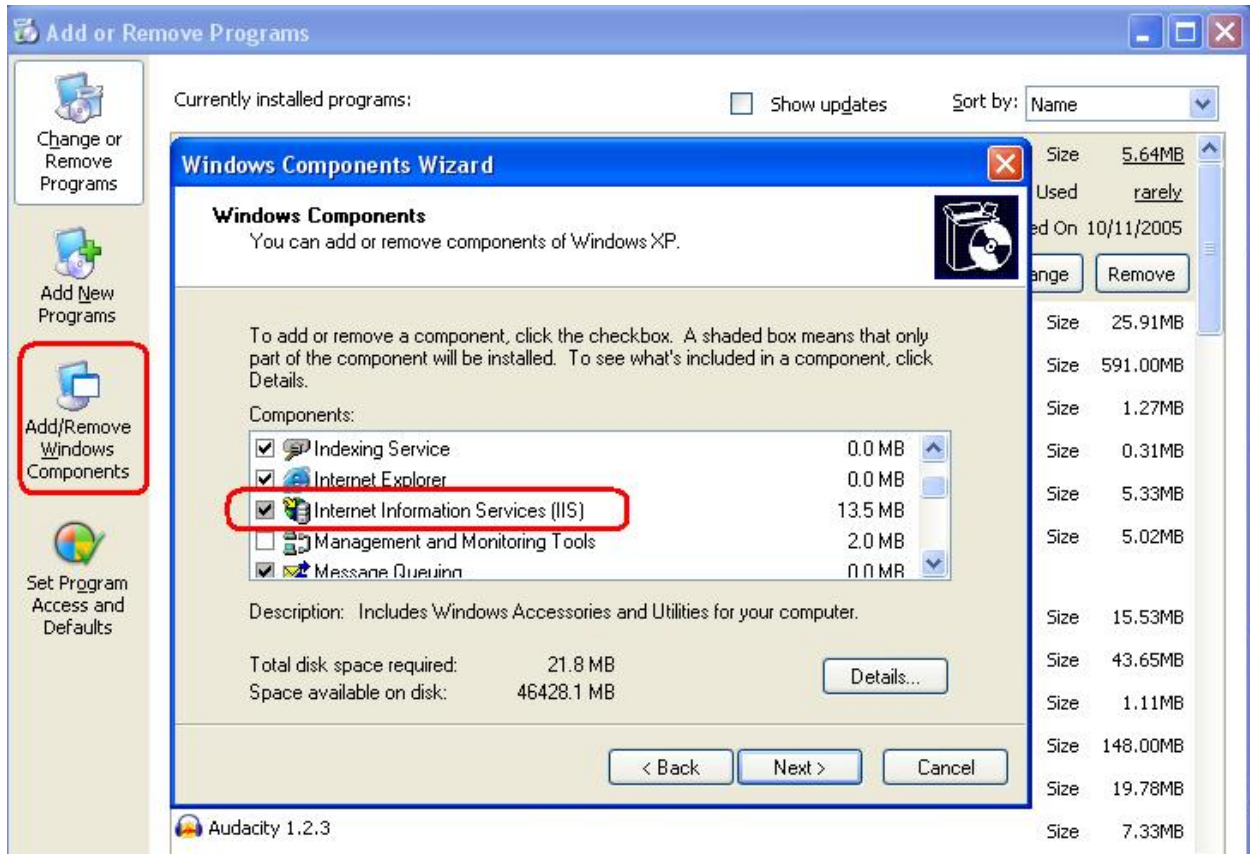
1) **Must have additional Windows Components installed**

Open the Control Panel, and double click the “Add/Remove Programs” icon. Make sure there is a Microsoft

Open the Control Panel, and double click the “Add/Remove Programs” button. Next, on the side of the window, click on the “Add/Remove Windows Components” and a smaller window will pop-up. Make sure the following items are installed (if already checked, then currently installed)

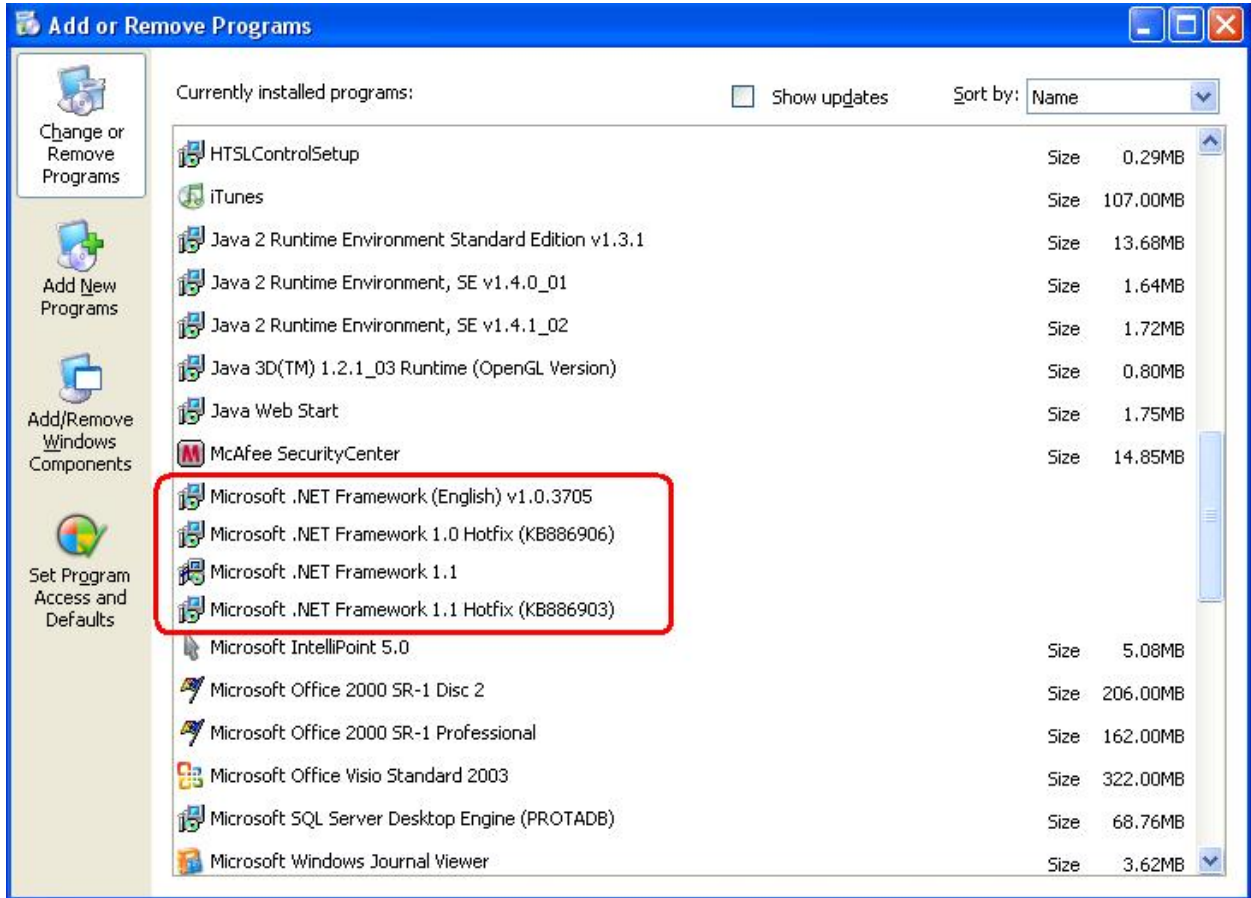
Additional Windows Components that must be installed

- **Indexing Service**
- **Internet Information Services**
- **Management and Monitoring Tools**
- **Message Queuing**
- **Other Network File and Print Services**



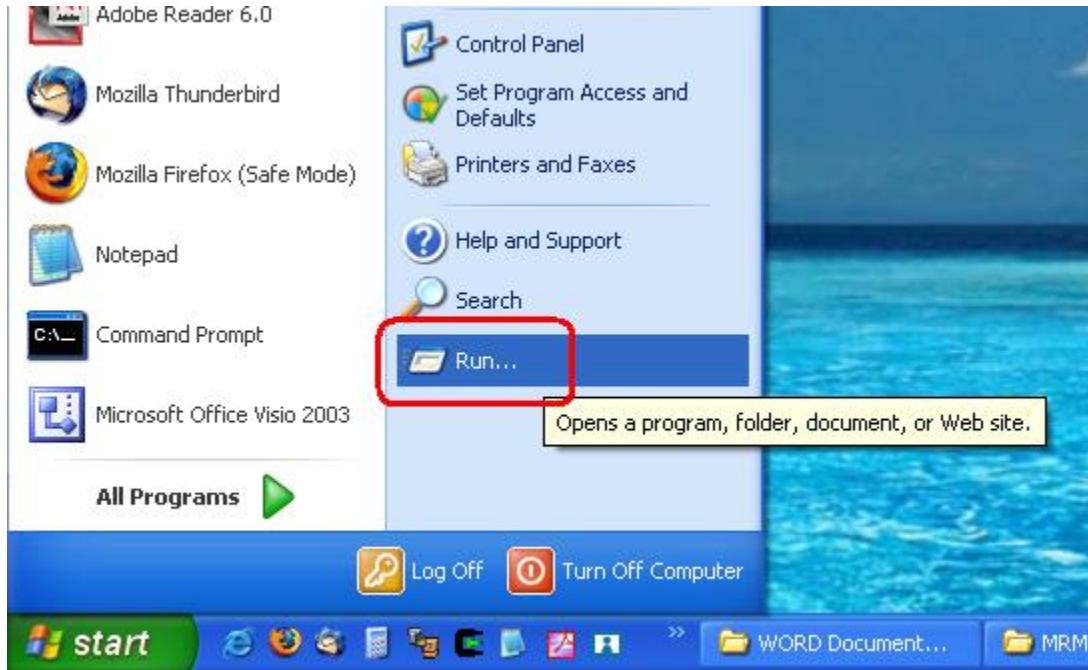
2) **Must be running Microsoft .NET Framework 1.1 or higher**

Open the Control Panel, and double click the “Add/Remove Programs” icon. Make sure there is a Microsoft .NET Framework 1.1 or greater program exists. (Example shown below, not all icons are necessary)

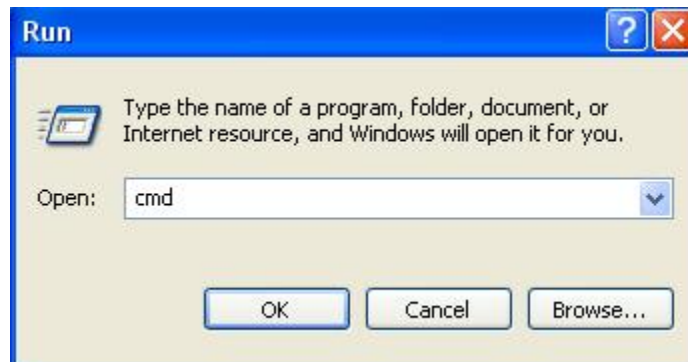


3) Must be able to ping the NMR workstation IP Address through Network

Click on the Windows 'Start' button, and select the Run option.



Type in "cmd" into the command line and then click 'ok'



A terminal window will appear. Type in the word ping, a space, then the IP address of the NMR work station and then hit the enter key.

```
C:\ C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Aaron>ping 10.0.2.77_
```

A working connection (below) shows the computer ‘reply’s 4 times and then the program quits.

```
C:\ C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Aaron>ping 10.0.2.77
Pinging 10.0.2.77 with 32 bytes of data:
Reply from 10.0.2.77: bytes=32 time<1ms TTL=128
Reply from 10.0.2.77: bytes=32 time<1ms TTL=128
Reply from 10.0.2.77: bytes=32 time<1ms TTL=128
Reply from 10.0.2.77: bytes=32 time<1ms TTL=128
Ping statistics for 10.0.2.77:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\Documents and Settings\Aaron>_
```

Below is an example of a failed connection, the request times out 4 times and then quits.

```
C:\Documents and Settings\Aaron>ping 10.0.2.222
Pinging 10.0.2.222 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 10.0.2.222:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\Documents and Settings\Aaron>_
```