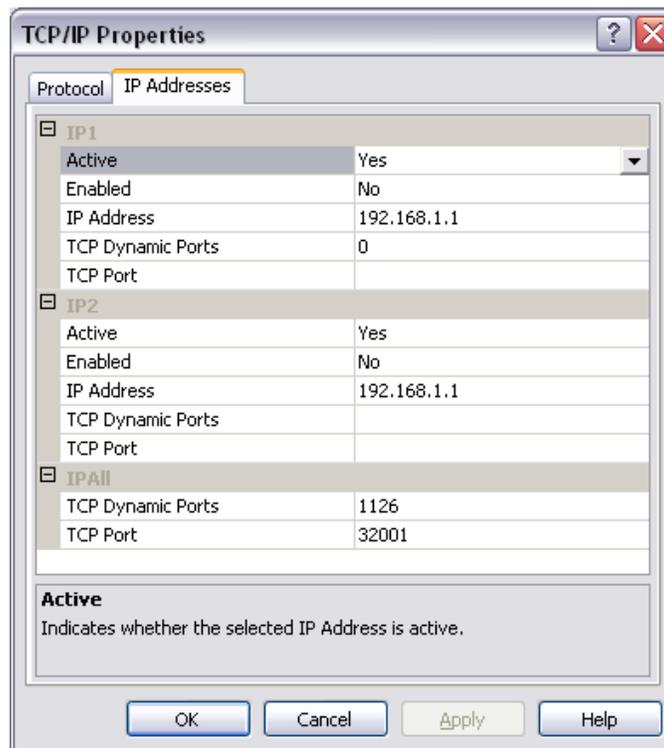# Configuring SQL Server to use Static Ports

If when trying to connect two stations and after the firewall and network have both been configured, but the computers are not syncing it might be helpful to run sql server on a static port.

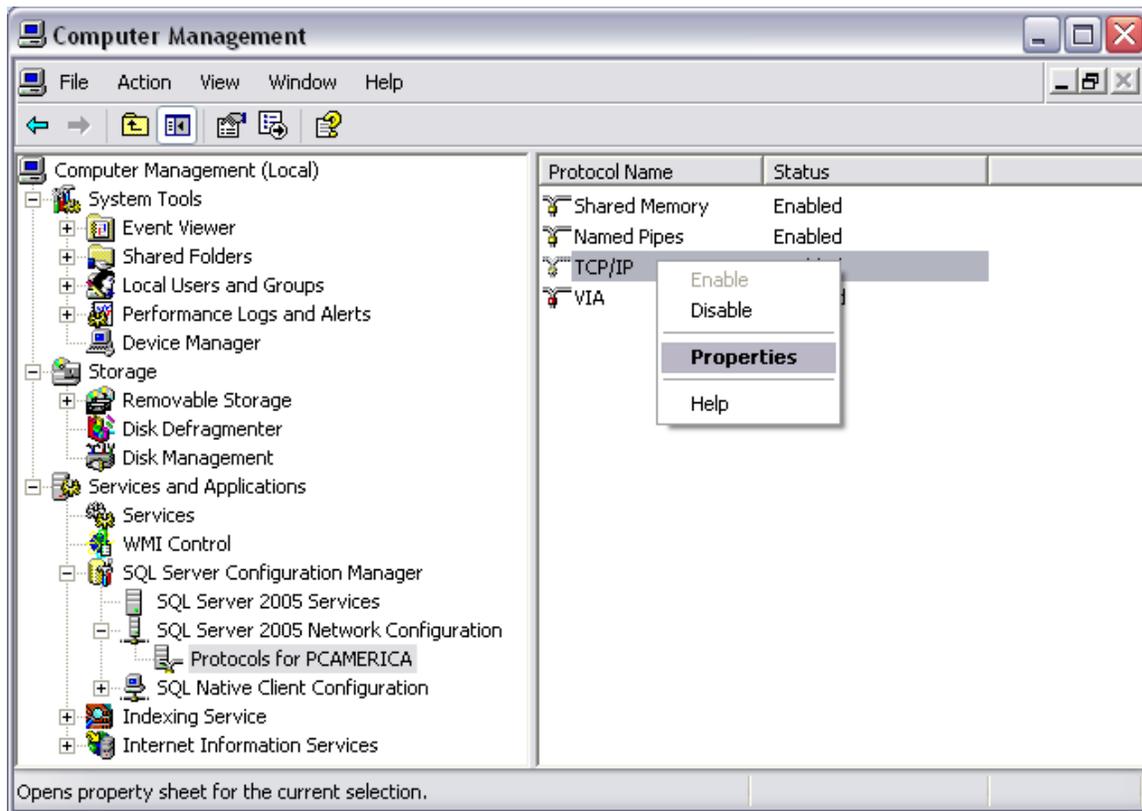**Server Station Setup – Configuring Static Ports**

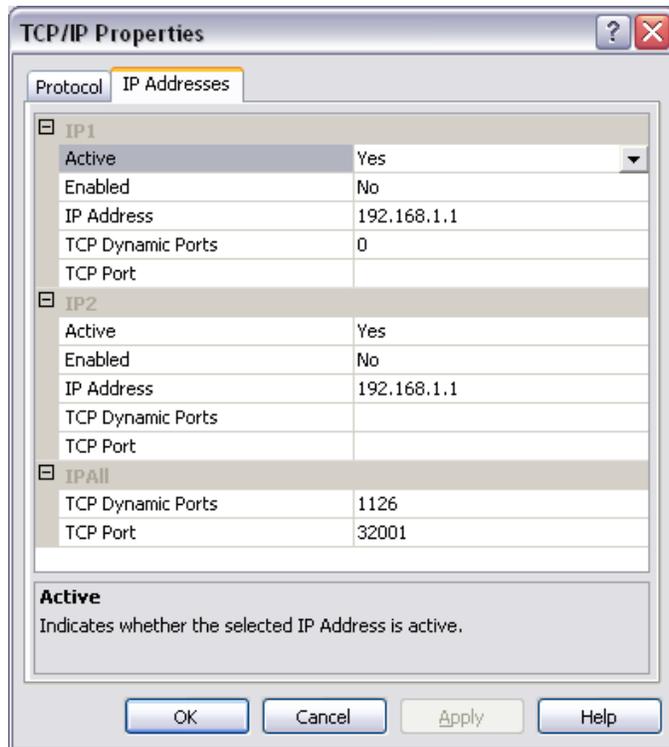This section will go through the steps required to configure SQL Server on the server machine.

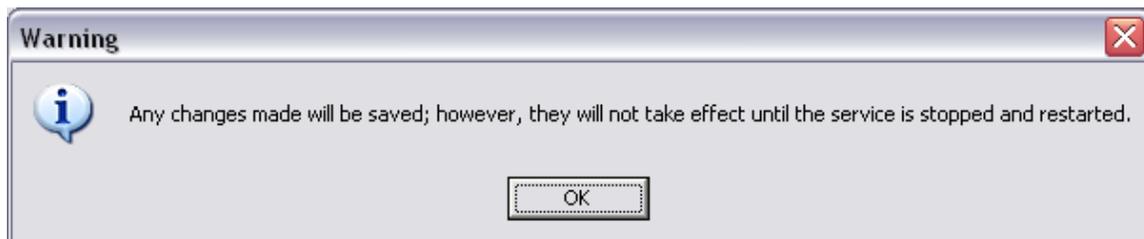|	
	1. Select **Start**.
	2. Right-click on **My Computer** and select **Manage**.

3. Select the **+** sign next to **Services and Applications**.

4. Select the **+** sign next to **SQL Server 2005 Network Configuration**.

5. Select **Protocols for PCAMERICA**. (Substitute PCAMERICA with the named instance of SQL you are working with.)

6. Right-click on the following protocol and select **Properties**:

   - **TCP/IP**

TCP/IP Properties Protocol **IP Addresses** ⊟ **IP1** Active .... Yes ▼ Enabled .... No IP Address .... 192.168.1.1 TCP Dynamic Ports .. 0 TCP Port .... ⊟ **IP2** Active .... Yes Enabled .... No IP Address .... 192.168.1.1 TCP Dynamic Ports .. TCP Port .... ⊟ **IPAll** TCP Dynamic Ports .. 1126 TCP Port .... 32001 **Active** Indicates whether the selected IP Address is active. [OK] [Cancel] [Apply] [Help]	7. Scroll down to the "IPAll" section and input 32001 for the TCP Port and select "Apply." Make sure TCP Dynamic Ports is left blank

Warning

ℹ Any changes made will be saved; however, they will not take effect until the service is stopped and restarted.

[OK]

8. You will receive an error message stating that the changes will not be committed until the service has been restarted.

9. Select OK.

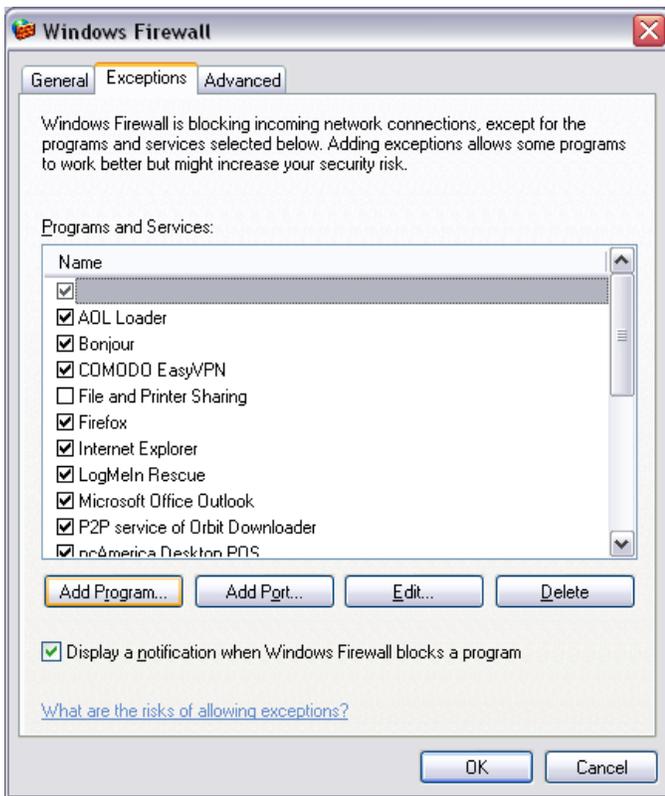10. We will now have to restart the service.
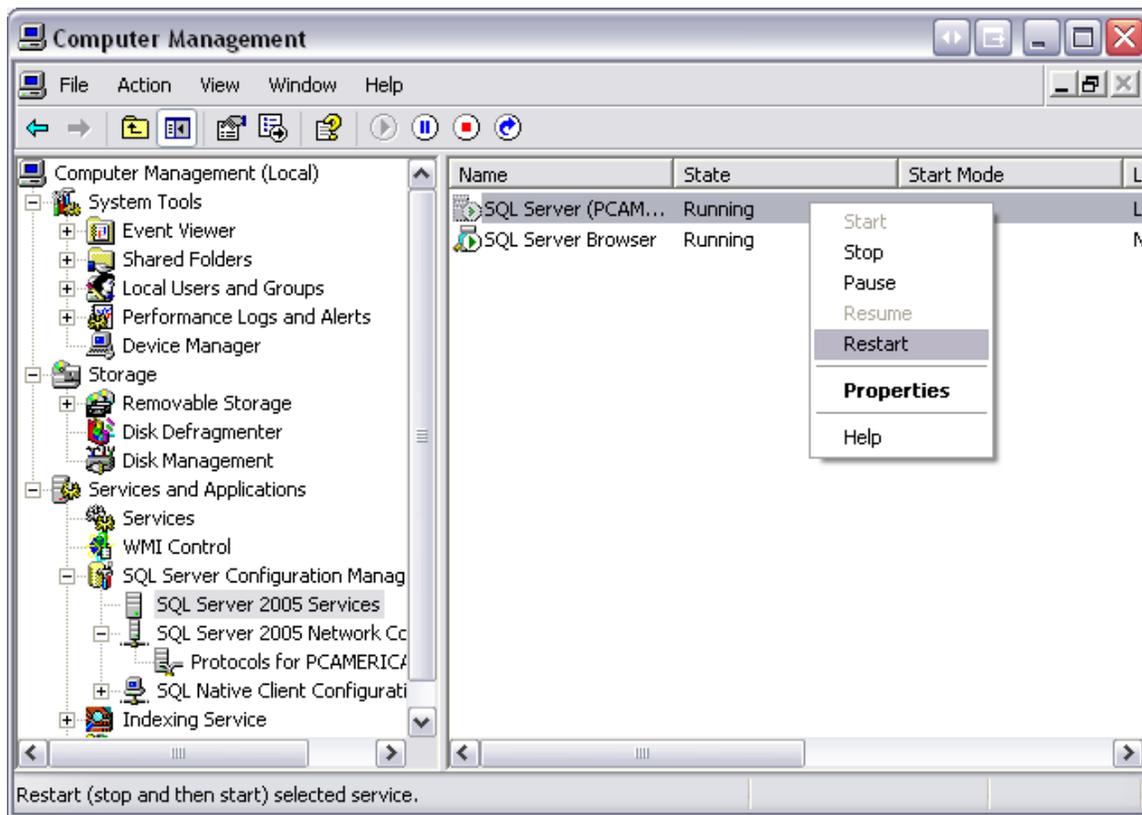
11. Select **SQL Server 2005 Services** and then right-click on the following services and select **Restart**:

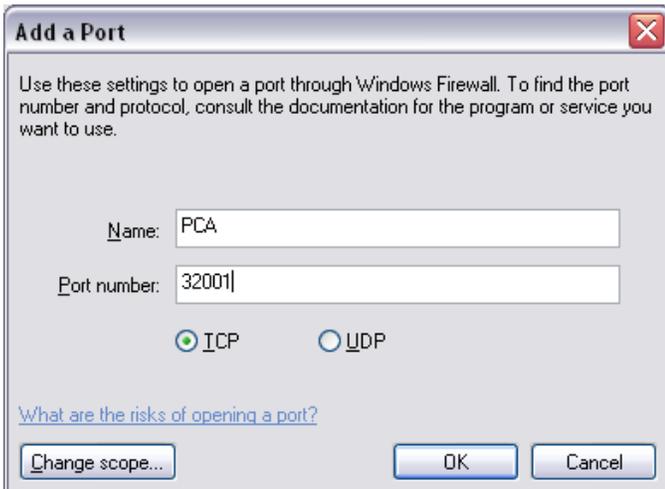- **SQL Server (PCAMERICA)**

- **SQL Server Browser**

Server Station Setup – Configuring Firewalls

You will now need to open port 32001 on all installed firewalls, we'll demonstrate how to do it on the Windows Firewall, but the process should be repeated for other third party firewall software.

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	1. Select **Start**.
	2. Select **Control Panel**.
	3. Select **Windows Firewall**.

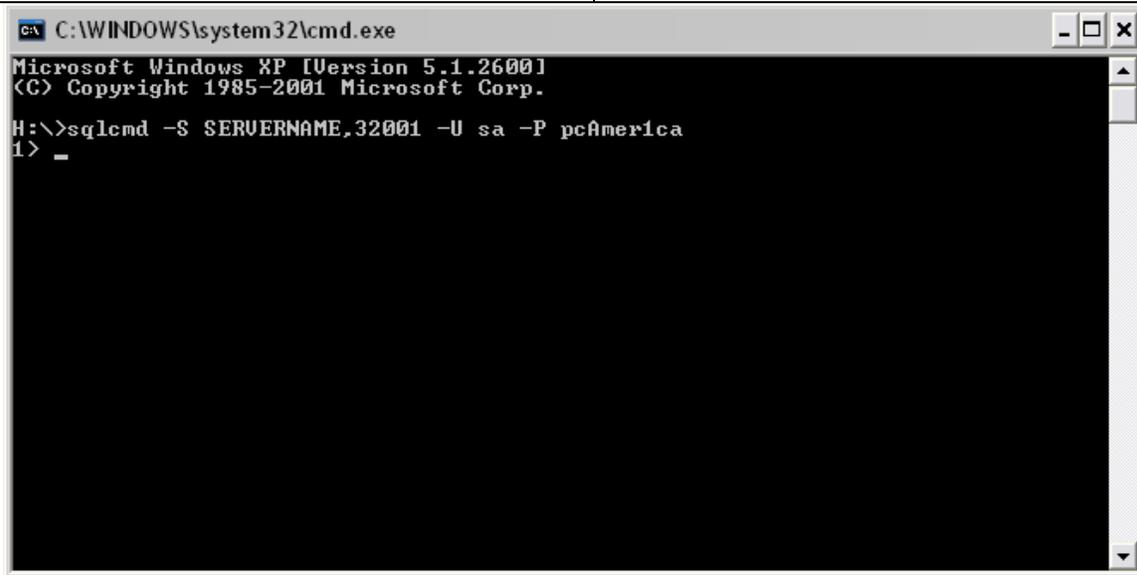|	
	4. Select the **Exceptions** tab and then select **Add Port**.
	5. Input a name for your exception (e.g. **PCA**) and a Port Number of **32001**. Make sure TCP is the selected Protocol and select **OK.**

Server Station Setup – Testing the Connection

We will want to run a simple test to verify that everything is setup correctly.

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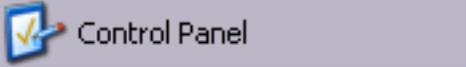|	
	1. Select **Start**. 2. Select **Run**.
	3. Type in **CMD** and select **OK**.

4. Type the following command (substituting the name of the server computer you are working with the one in the example).
   - **sqlcmd -S SERVERNAME,32001 -U sa -P pcAmer1ca**

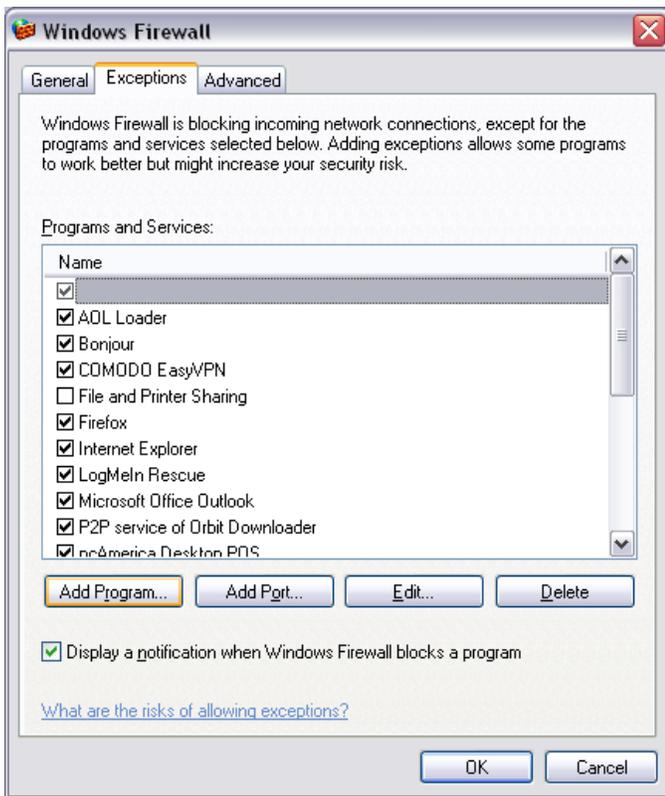5. You should now see a "**1>**" prompt if everything is working correctly.

Client Station Setup

This section describes how to set up your client to use static ports. We'll go through setting up the Windows Firewall exceptions, testing the remote connection, then setting up CRE itself. There is no need to set up any SQL Server settings on the client with direct connect method.
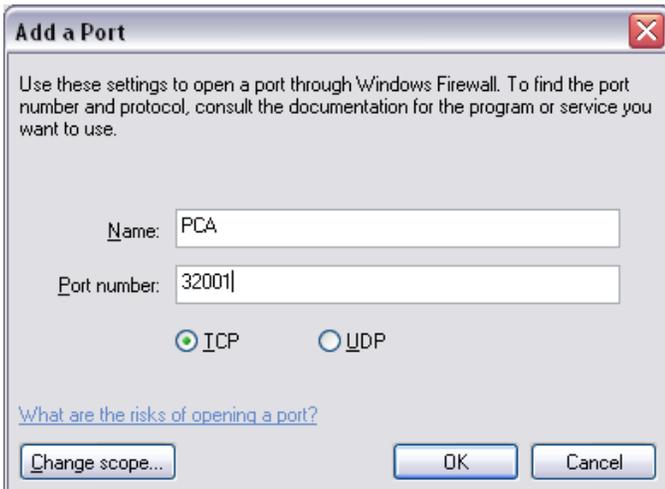
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Configuring Firewalls

You will now need to open port 32001 on all installed firewalls, we'll demonstrate how to do it on the Windows Firewall, but the process should be repeated for other third party firewall software.

	1. Select **Start**.
	2. Select **Control Panel**.
	3. Select **Windows Firewall**.

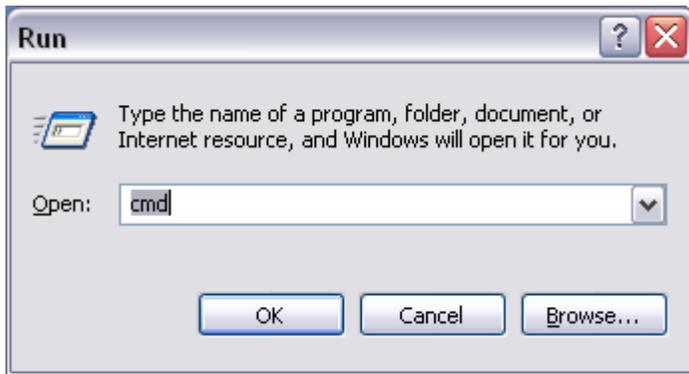4. Select the **Exceptions** tab and then select **Add Port**.

5. Input a name for your exception (e.g. **PCA**) and a Port Number of **32001**. Make sure TCP is the selected Protocol and select **OK.**
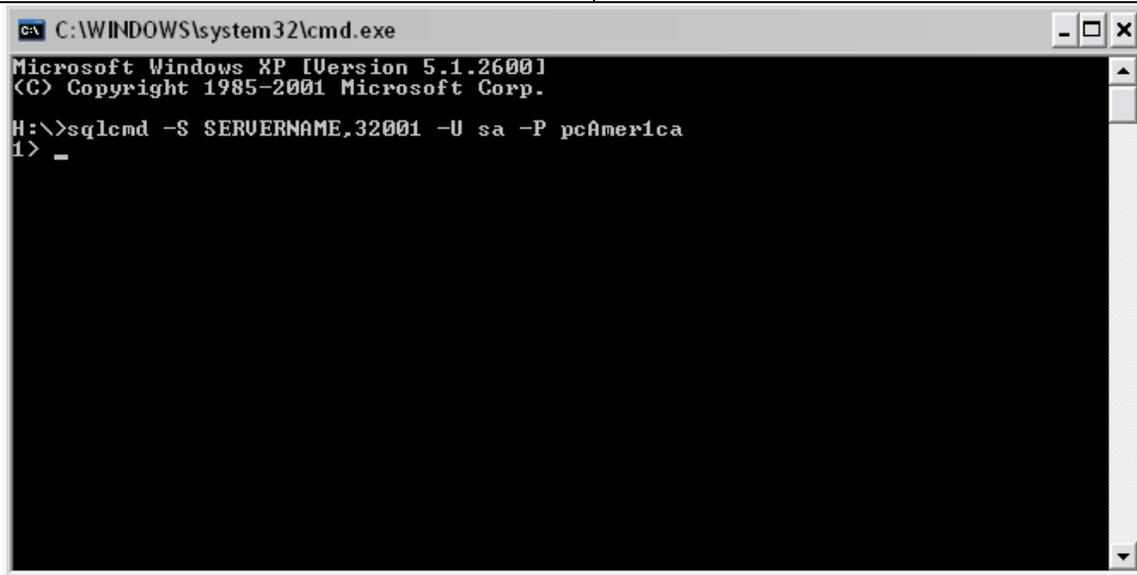
Server Station Setup – Testing the Connection

We will want to run a simple test to verify that everything is setup correctly.

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|	
	1. Select **Start**. 2. Select **Run**.
	3. Type in **CMD** and select **OK**.

4. Type the following command (substituting the name of the server computer you had set up in the previous section, NOT the computer name you are currently on, we want to check REMOTE connections here).
   - **sqlcmd -S SERVERNAME,32001 -U sa -P pcAmer1ca**

5. You should now see a "**1>**" prompt if everything is working correctly.

CRE/RPE Settings

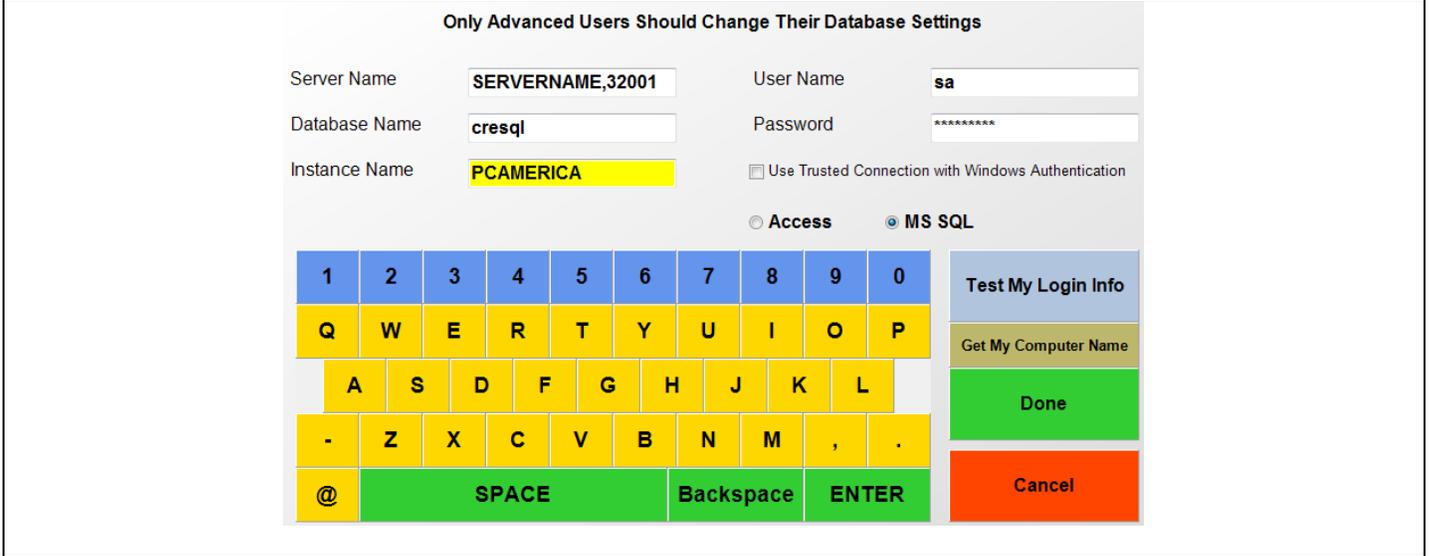**Note**: The following settings must be completed on both stations.
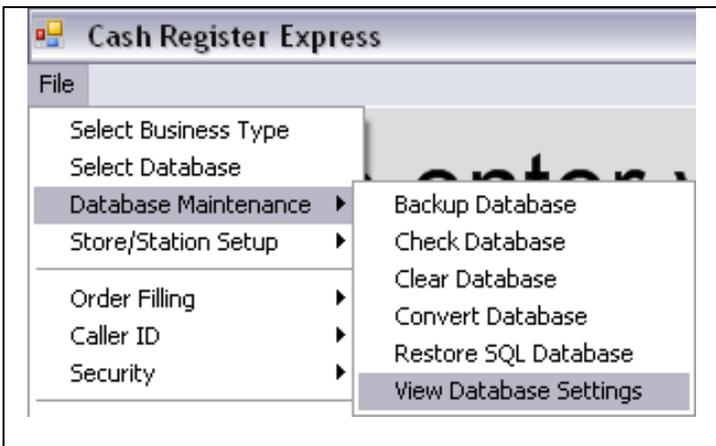
1. Open **CRE/RPE**.

2. Select **File** then **Database Maintenance** and finally **View Database Settings**.

Enter your administrator password (if applicable).

3. Enter the following Information:
   o Server Name: SERVERNAME (substitute SERVERNAME for the computer name of the server computer you are working with)
   o Database Name: Enter the Database Name (default = cresql).
   o Instance Name: Enter the Instance Name (default = PCAMERICA).
   o User Name: sa
   o Password: Enter the Password for the Instance entered above (default = pcAmer1ca).

4. Select **Done**.

If the stations are still not connected, here are some things to keep in mind: Make sure SQL is set to allow remote connections, and that it is set to use a static port. Make sure any and all firewalls or other port blocking software has the appropriate exceptions. Finally, make sure you can connect remotely using SQLCMD before making any changes in CRE/RPE.