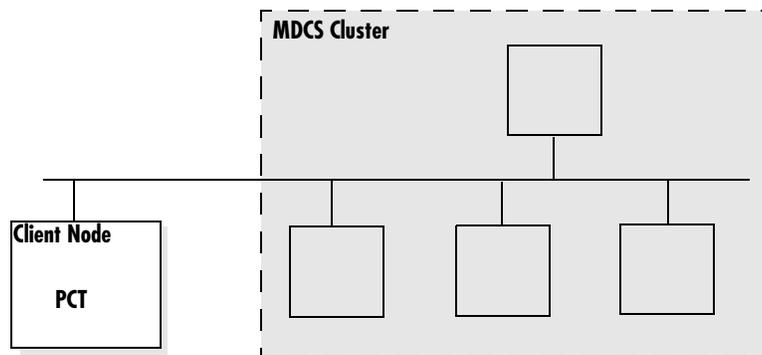


# Stage 3 of 4

## Stage 3 of 4: Installing Parallel Computing Toolbox™ 4.2 on Windows® Operating Systems

Now that your cluster is ready to be used, you have to install Parallel Computing Toolbox™ software on the computer you will use to write MATLAB® applications. This is called the *client* node. These instructions assume that each client node already has an existing MATLAB R2009b installation.

This figure shows the installations that you must perform on client nodes.



### Product Installations on Client Nodes

#### Step 1: Download the Latest Version of Parallel Computing Toolbox

With MATLAB R2009b already installed on your client computers, you can download the latest version of Parallel Computing Toolbox from the MathWorks Web site and install it on every client node.

---

**Note** The following instructions describe how to download the toolbox from the MathWorks Web site. Alternatively, you can install Parallel Computing Toolbox from the R2009b installation DVD. For instructions on installing a toolbox from the DVD, see the installation documentation that came with the DVD, or online at

<http://www.mathworks.com/access/helpdesk/help/base/install/install.html>

---

# Installing Parallel Computing Toolbox 4.2      Stage 3 of 4

---

- 1 Download the product to a location accessible to all client nodes. You can download the product once and install it multiple times.
  - If you are a trial user, you have received an e-mail describing how to download the product.
  - If you are a licensed user, go to The MathWorks Web site, [www.mathworks.com/web\\_downloads/](http://www.mathworks.com/web_downloads/), and download the product from your account.
- 2 Follow the online instructions for downloading and preparing the installer.

## Step 2: Install Toolbox Software

- 1 Start the installer as you would normally, in the same manner you have already done to install MATLAB R2009b.

When using the downloaded installation files, make sure the files you have downloaded for any new toolboxes include Parallel Computing Toolbox.

- 2 When you are prompted for a typical or custom installation, select the custom installation option.
- 3 When prompted for products to install, select only the new toolboxes for installation, including Parallel Computing Toolbox.

---

**Note** If Parallel Computing Toolbox is not listed among your available products, contact the MathWorks install support team.

---

- 4 Complete the installation and activation process.

When complete, you should be able to access the new toolboxes.

---

## Step 3: Configure Windows Firewalls

If you are using Windows firewalls on your cluster nodes,

1 Log in as a user with administrative privileges.

2 Execute the following in a DOS command window.

```
matlabroot\toolbox\distcomp\bin\addMatlabToWindowsFirewall.bat
```

This command adds MATLAB as an allowed program. If you are using other firewalls, you must configure them to make similar accommodation.

## Step 4: Configure the Client Computer for SOA Job Submission on HPC Server 2008

---

**Note** This step is needed only if you are using cluster computers with Microsoft Windows operating systems, and you want to make SOA job submissions to an HPC Server 2008 cluster.

---

1 Log in as a user with administrative privileges.

2 If MDCS is installed on a network share, run the following command:

```
matlabroot\toolbox\distcomp\bin\addAssembliesToCaspol.bat -client
```

This command ensures that the .NET assemblies required by Parallel Computing Toolbox and located on the network share are granted Full Trust in the .NET Code Access Security Policy.

---

**Note** If using HPC Server 2008 in a network share installation, the network share location must be in the “Intranet” zone. You might need to adjust the Internet Options for your cluster nodes and add the network share location to the list of Intranet sites.

---

---

## Step 5: Configure the Client Computer for mpiexec

---

**Note** This step is needed only if you are using Windows cluster computers and directly using mpiexec as your scheduler.

---

### Without Delegation

The mpiexec command uses credentials to authenticate users for running jobs. The client computer requires that you have credentials in the Windows registry for each user who will submit jobs. To set up your Windows client computer for submitting jobs to an smpd service,

- 1 Log in as the user you want to submit jobs as.
- 2 Enter your credentials in the registry by typing the following commands at a DOS command prompt.  

```
cd matlabroot\bin\win32 (or cd matlabroot\bin\win64)
mpiexec -register
```
- 3 Provide your login name and password when requested. The information gets encrypted in the Windows registry.
- 4 Repeat this step for each user who will submit jobs from this client.

You can later remove your credentials from the registry by running

```
mpiexec -remove
```

You must execute this command for each user whose credentials you want to remove. That is, it removes only those credentials of the currently logged in user.

© COPYRIGHT 2005–2009 by The MathWorks, Inc. MATLAB and Simulink are registered trademarks of The MathWorks, Inc. See [www.mathworks.com/trademarks](http://www.mathworks.com/trademarks) for a list of additional trademarks. Other product or brand names may be trademarks or registered trademarks of their respective holders.

The MathWorks products are protected by one or more U.S. patents. Please see [www.mathworks.com/patents](http://www.mathworks.com/patents) for more information.